

New budget will hinder our work, SRC says

by Clive Cookson
science correspondent

The Science Research Council has become increasingly convinced over the past year that the lower budgets it is to receive over the next few years will not allow it to discharge its responsibilities adequately.

The SRC annual report, published yesterday, says the combination of managerial and financial problems facing the council in 1977 are even more severe than during last year's cash crisis. Its 1977-78 budget is 4 per cent less in real terms than in 1976-77, and the reduction is expected to reach 10 per cent by 1981-82.

"In order to provide extra studentships to make good part of the expected loss of support from non-governmental bodies and to continue a minimum of free funds for new projects of great national and scientific importance, the council had to decide to run down other excellent programmes even faster than it had the Advisory Board for the Research Councils had considered to be reasonable last year."

Spending on nuclear physics will decrease at 61 per cent a year instead of the 5 per cent planned last year, from £43m in 1977-78 to £13m in 1981-82. The subscription to CERN, the European nuclear research centre, will be £20m, leaving only £13m for domestic programmes. "This level of expenditure would be inadequate to continue the full exploitation of existing facilities for high energy physics and would not provide for any future international high energy facility; nor would it permit full development and use of the Nuclear Structure Facility being built at the Daresbury Laboratory."

Expenditure on biological and geophysical research, including the European Space Agency, will be no more than half the level in 1982. "This would make it impossible to exploit the United King-

Week of talks will decide pay action

by David Walker

Meetings are to take place in most universities this week to determine whether the Association of University Teachers takes industrial action over its pay claim.

Local associations will be electing delegates and deciding on motions for the forthcoming council meeting of the A.U.T. which is to be held on September 30.

The meetings will have advice on action from the A.U.T. executive which is meeting today. An additional meeting will be held in London on Monday, September 26, when the A.U.T. executive will be meeting with representatives of the Government.

The A.U.T. executive is expected to announce its decision on whether to take industrial action over its pay claim. The A.U.T. executive is expected to announce its decision on whether to take industrial action over its pay claim.

University book buying 'has slumped in past two years'

by Judith Judd

Book-buying in universities has slumped over the past two years, according to figures released yesterday in a National Book League report.

Sixteen universities spent less on books per student in 1974-75 than they did in 1972-73, a two-year period during which the purchasing power of the pound fell by more than 40 per cent.

Only four universities—Lester, London, Aberdeen and Edinburgh—showed consistent rises in spending during the six years under review in the report *University Library Expenditure 1969-75*.

Between 1973 and 1975 23 universities spent less on books. At the bottom of the book spending per student league in 1974-75 are Cardiff, Manchester Institute of Science and Technology, Dundee and Heriot Watt.

The report says: "Though there is remarkable consistency in the appearance of Heriot Watt as the university spending least per student on books, at the other extreme figures for maximum expenditure appear on the whole to be instances of exceptionally spending quite anomalous normal spending patterns of university in question."

For instance, had the University in 1970-71 of £294,000 spent only £12,988 in 1974-75. There are big variations in universities' spending in the buying league in the same years. Dundee, for instance, spent only £12,988 in 1974-75. There are big variations in universities' spending in the buying league in the same years. Dundee, for instance, spent only £12,988 in 1974-75.

OU rejects Perry report on standards

by Judith Judd

The Open University's academic board has thrown out the first report of a working group on academic standards set up after allegations of Marxist bias in some OU courses.

The board has told the working group to rethink and has added two new members to the group which is headed by Sir Walter Perry, the vice-chancellor. They are Mr Ken Thompson, a sociologist and head of the university's postgraduate studies, and Mr Geoffrey Esmond, author of one of the units of the Schooling and Society course, and a lecturer in sociology in the educational studies department.

It was criticism of Schooling and Society which led to the establishment of the working group. The part of the report which has angered academics concerns the criteria to be used for courses which recommendations that they should be written in a more sensitive to public opinion. Such criteria, they feel, would be unacceptable to any other university and is a threat to academic freedom.

They say courses should not aim to appease public opinion and that some of them should encourage criticism of commonly-held views.

There is also concern about the emphasis on the role of external assessors. As predicted in *THE TIMES* in April the group proposes that all courses should be externally assessed. At the moment a course team is not obliged to appoint external assessors.

The group accepted that the role of the external assessor should primarily be one of advising but the assessor should provide the university with reassurance that the course was being produced in accordance with the criteria, including the controversial one about public opinion.

The report lays down procedures for tightening up the role of external assessors. The critics of the report believe that assessors are of great value but they are worried that the new procedures might be used as a censorship device, giving assessors a more powerful role.

More controversial are the suggestions which would strengthen the role of chairmen of the teams of academics practising courses. The report urges the academic board to appoint assessors to the position of chairmen with regard to three criteria: known academic competence in the relevant subject area; known efficiency in meeting course objectives; and overall awareness of the reputation of the university.



Barry Fanton

29 per cent increase in women poly graduates—CDP

The outstanding feature of a 14 per cent rise in the 1976 output of polytechnic graduates was a 29 per cent increase in women graduating, according to survey figures released this week by the Committee of Directors of Polytechnics.

The survey, which gives full details of the destinations of polytechnic graduates and successful Higher National Diploma students last year, also reveals that men's full-time enrolment in polytechnics rose by 27 per cent in 1976, compared with 27 per cent the previous year. Twelve per cent of HND holders found work in this area, a fall of five per cent.

Ninety-one per cent of the engineering and technology graduates entered industry, a rise of 7 per cent, and there was a similar shift in other areas.

Small standards decline found

The A-level performance of students entering university has fallen only slightly over the past four years, according to statistics published by the Universities Central Council on Admissions.

The figures show that the percentage of students scoring three grades A, two As and a C or C and an A and two Bs fell from 1973 to 1976. The percentage of those in the lowest band, according to the UCCA grading system, fell from 35 to 33 per cent.

In some subjects—engineering, agriculture, forestry and veterinary science and architecture—the percentage of those in the top group was maintained, in medicine and dentistry it rose from 29 to 35 per cent. It fell, however, in science, language, literature and arts subjects other than music.

The statistics show that the management sciences are the most popular subjects, last year attracting 3,282 applicants compared with 1,627 in 1972. This figure is expected to rise to 4,000 in 1977, making the subject the most popular.

Medicine, which had 12,015 entrants last year, is still the most popular subject but the number of applicants fell.

The UCCA Statistical Supplement, *Fourteenth Report 1976-77*, is available from the Universities Central Council, 28, Chiswell Street, London EC1A 4DF, £5.50 (hbk), £1.25 (pbk).

Academics threaten walk-out

by Frances Gilh

A national one-day strike combined with a mass lobby of Parliament will be considered at an emergency meeting in London today of the Association of University Teachers.

The action would be in support of the lecturers' pay claim now before the Government.

The proposal has been put forward by the executive in an attempt to express feelings of resentment which have increased in the past three months. Lecturers in the 23,000-member Association are demanding replication of the pay anomaly which arose when they got the second part of their arbitration award in 1975.

The executive recommends as a first step a national meeting of all university teachers in Central London early in November, coupled with a lobby of Parliament. That would necessarily entail the cancellation of lectures and tutorials for that day, it says. It would be backed by a campaign of letters and donations to MPs with special attention paid to those in marginal constituencies.

The pamphlet issued this week to all lecturers, the executive says: "Many of you will have observed with some concern the way in which colleges of education have been 'carved up' in recent months. We must be determined that we do not receive the same superficial and cavalier treatment to our pay."

Among other measures to be considered are withdrawal of labour by A.U.T. members working for the Universities Central Council on Admissions (UCCA) so that the 'admissions system' would be paralysed.

DES considers overseas students' body

by Sue Reid

A radical proposal for a standing commission to keep overseas students' affairs in Britain under constant review is now being considered by the Government following a series of confidential negotiations.

A major document outlining the plan for a complete rationalization of overseas students' policy was submitted this week to Mrs Williams, Secretary of State for Education and Science, by the United Kingdom Council for Overseas Student Affairs and the Council for Education in the Commonwealth.

It was circulated to the secretaries of state for the Home Office, Foreign and Commonwealth Office and the Ministry of Overseas Development.

The document argues for a powerful commission with a brief to make recommendations to Government on fee levels, hardship funds, cost provision and regulations covering the 100,000 overseas students.

It would also collate information from universities, colleges and Government departments on the demand for education and training in Britain from abroad and the availability of places.

The commission should operate under a neutral chairman appointed from outside the country, it says. It should include representatives of organizations concerned with overseas students, the Committee of Vice-Chancellors and Principals, the Committee of Directors of Polytechnics, the National Union of Students and the main teacher unions.

Representatives would be drawn from the three main political parties and the members of Government departments, including the DES, ODM, FCO and Department of Employment, is also mooted.

A smaller core group, to assist the chairman in formulating policy proposals for submission to the Government after discussion with the full commission, is proposed. This may be the UKOSA and the CEC, with a number about 10.

Mrs Williams and Mr Oakes, Minister of State for Higher Education, were told informally of the proposal during the summer. They have been asked to make a ruling about the commission concept before Parliament reconvenes next month following consultation with other Government departments.

APT suggests new poly body

A national body appointed by the Department of Education and Science should run polytechnics, the Association of Polytechnic Teachers said in the second part of its submission to the Oakes committee.

The APT, which represents about 3,000 lecturers in polytechnics, advocated the abolition of local authority control except for a residual role in inspecting the finances and the educational provision of the colleges periodically.

Other colleges of further education with a certain minimum level of advanced work would also come under the control of the proposal national committee.

Rebate for students from railways

Articles will see the thousands of students rebates of between 15p and 40p against the cost of student railcards purchased in the past three years following an appeal court ruling that VAT was overcharged. The rebate payments could total £25,000, the National Union of Students said this week.

GMC training survey finds variety

The General Medical Council's three-year £50,000 survey *Basic Medical Education in the British Isles*, published this week, shows the great variety of undergraduate medical training in the United Kingdom and Eire.

Some of the 38 medical schools covered by the 900-page report said special disciplines and special areas of medicine have students of all ages, examinations, and a variety of courses.

MPs press for more to live at home

by Peter Scott

A House of Commons committee has urged the Department of Education and Science to examine the case for increasing the number of home-based university students as a matter of urgency.

In its initial report, published today, the Public Accounts Committee adds that any proposed measures to reduce the burden on public funds "should be introduced expeditiously". It argues that the restriction of a student's freedom of choice must be weighed against the greater cost of maintaining a student living away from home.

The committee also casts a sceptical eye over the more popular practice of financing new student residences which reduce the amount of resources devoted to the higher building because the DES takes account of the higher costs charged in determining the level of student grants. Yet it allows universities to exceed the building programme notified to Parliament.

The committee's remarks are even less comforting from the point of view of the quinquennial system, it says.

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CNAA gives Newcastle favourable report

by Fred Kavalier
Minor criticism and major commendations are the verdict of the CNAA in its second quinquennial report on Newcastle Polytechnic. The polytechnic is approved as a degree giving body for the next five years but reservations are expressed about the weakness of its faculty structure and its confusing method of calculating staff loads and staff-student ratios.
The CNAA is critical of the slow progress made over the four years since its first report in 1971 in improving the academic organization. However, there is praise for the progress made during the period of discussion before the final CNAA assessment was drafted. The polytechnic is asked to report by January, 1979, on developments in strengthening the faculty structure.
The report comes at a time of difficulty for the polytechnic which has recently merged with the Northern Counties College of Education while being forced to reduce the number of teacher training classes. The CNAA is clearly sympathetic to the possibility of redundancies and offers to consider sympathetically new courses which could make use of staff who might otherwise face redundancy.
Criticism of the academic structure centres around the apparent

Working women are still less equal

by Frances Gibb
Women now account for well over one-third of all graduates entering the professions, according to Lady Howe, deputy chairman of the Equal Opportunities Commission. She told the Fawcett Society's North Eastern regional conference that women may represent more than half the graduates entering professional management (61.7 per cent); 31.9 per cent entering banking and insurance; 22 per cent entering the legal profession and 22.7 per cent entering accountancy and finance.
Women now made up 41 per cent of the working population of Britain, Labour force projections showed that from 1971 to 1986 the proportion of married women working would rise by 22.9 per cent by 1986, compared with a growth rate of only 4.2 per cent for men.
But she noted that the movement of more women into executive and management positions did not reflect sufficiently increased participation. Half of all working women were still in low-paid jobs.
Between December 1976 and February 1977 only one woman had been appointed to sit on any of the three education committees set up by the Department of Education and Science. The commission had asked government departments for regular reports on their progress in appointing women to senior jobs and was monitoring their replies.
Universities and other employers should use their rights under the Sex Discrimination Act, she said, to increase the number of women in the world, Miss Betty Lockwood, chairman of the EOC, said.

Teething troubles hit SSRC initiatives board

The main emphasis in the report of the Social Science Research Council this year is on its initiatives in the fields of pollution, population, health, energy and the functioning of government.
The year 1976-77 is the first in which the work of the SSRC's research initiatives board can be judged, it says. The report admits there have been teething troubles in the division between research initiatives, grants and postgraduate training.
The SSRC has obligations both to fundamental academic research and to solving social, economic and political problems, the report says. "There is no fundamental conflict between these two objectives although, of course, financial constraints mean that difficult choices have to be made."
Part of the difficulty in 1976-77 has been in successfully applying to the council for grants. The rate of success measured by amount applied for and amount awarded has

Sir John's final view from top is gloomy

Sir John Hubbick, retiring vice-chancellor of Oxford University, gave a gloomy view of the prospects for the university system as a whole when he delivered his farewell speech in congregation on Wednesday. He is succeeded at the end of his four-year tenure of office, by the Warden of Merion, Sir Rex Richards.
Sir John, who has been this year's chairman of the Committee of Vice-Chancellors and Principals, warned that the implications of recent Government announcements become clearer, universities might find they had lost more than the quantitative system and that there had been a fundamental change in approach to university finance.
His optimism, he said, arose from signs not simply of an intention by the Government to reduce the amount of cash available to universities, but of a switch in the relation between numbers and cash.
Five years ago, the White Paper "Education: A Framework for Expansion" endorsed the general principles of the Robbins Report. Then the principle was the basis of the estimate that made higher education places which would be needed in the future, and the figure arrived at was then costed.
This year the sequence appeared to be different: the provisional indication of the grant had come first and then the universities had been told what number of students their grant should provide for.

Oxford drain on reserves 'cannot go on'

Oxford University has drawn on its reserves to support its present level of activity, a process which cannot continue indefinitely, the annual report states.
The report, published today, says that Government assumptions about pay and price increases for which allowances were made in grants to universities, showed that total support for universities from public funds would fall in real terms to 1977-78 by about 1 per cent.
Oxford's experience was that the provision which the University Grants Committee had been able to make showed a reduction, assuming the pay and price increases allowed for by the Government in the total grant, of about 3 per cent.
Uncertainty remained on one critical question: whether and to what extent the Government might be able to compensate universities if increases in prices and pay, which accounted for 70 per cent of Oxford's expenditure, exceeded the allowance for inflation included in the cash limit grants already announced.
The report also says that the provisional figures for the total universities' grant for 1978-79, 1979-80, and 1980-81 offered little comfort.
The 1978-79 figure was actually less in total than that for 1977-78, while the slight rise indicated after that year was less than proportionate to the forecast increase in student numbers. The decline in funds per student, so significant a feature in recent years, was clearly expected to continue.
The report expresses Oxford's regret at having to increase student fees as a result of a Government decision, and says the university has set aside up to £150,000 for the remission of fees in the hope of ensuring that those students already studying who began their courses with very different expectations than fees were able to complete them without undue hardship.
The effect of the present increases in fees on the future intake both of overseas students and the significant number of home students who for various reasons did not qualify for support from public funds, remained to be seen.

TUC urged to press for more union influence at Fircroft

Plans to give trade unions an important part in the running of Fircroft College, Birmingham, will be put to the TUC's education committee next month.
The proposals, which would mean a switch in emphasis in the college curriculum to give greater weight to trade union and labour studies, are causing concern among those who wish to preserve the college's former liberal studies course.
Fircroft, which ran a one-year residential course in liberal studies for mature students, has been closed for two years after students funded the principal and started running their own education programme.
A Department of Education and Science inquiry report later recommended that the principal and four tutors be sacked and the college reopened.
Negotiations between the TUC and the college trustees have been going on for a year and are now well advanced. The main point of difference which has not yet been resolved is the amount of TUC representation on the governing body.
The TUC negotiators want a simple majority of trade unionists but some of the trustees feel the TUC should not have more than 40 per cent.
The proposals for courses worked out by the trustees and the TUC include a one-year residential course in trade union and labour studies based on the previous liberal studies course and a three-year sandwich course with students doing a term at Fircroft each year.
Mr Roy Jackson, head of the TUC's education department, said

This week that the proposals would not turn Fircroft into a TUC college, except in so far as they recognized that most of those coming to Fircroft were trade unionists.
The curriculum would be more closely geared to the interests of Fircroft students. We have been rethinking the course along the lines of similar courses at Ruskin and the London School of Economics.
The college would not be training people for the trade union movement but would be a centre of workers' education specializing in trade union and labour studies.
It is hoped that the Department of Education and Science will pay much of the college's running costs as it has in the past.
The proposals are being regarded with suspicion in some quarters. Members of the old Fircroft's staff who have been involved in discussions about the college's future are anxious that TUC involvement should not fundamentally change the character of the one-year residential liberal studies course.
Dr Brian Nicol, the guild's press officer, said: "We want to ensure that the syllabus is not geared particularly to trade union needs. It should be a liberal studies course in the widest possible sense."
He wants to ensure that entry is open to everyone whether or not they are a trade unionist. If the trade unionists have a majority on the governing body we are going to be suspicious."

A consultative meeting of people in adult education, former Fircroft students, the trustees and other interested parties is expected to be held soon.

Geologists get own institution

Geologists have their own professional organization at last. The Institution of Geologists aims to "advance the profession and practice of geology by shaping opinion in Whitehall" local industry and in the EEC and further afield.
The new body will also promote the status of Britain's 4,000 professional geologists in terms of their education, training, pay and professional standards.
The Institution has been created out of the Association of Professional Geologists, which claims a membership of 1,000. The first secretary, Professor J. L. Knill, professor of engineering geology at Imperial College, has been the moving spirit during the five years it has taken to set up the new organization.
It will be based in Burlington House, Piccadilly, in the apartments of the Geological Society of London, the premier learned society for geologists in the United Kingdom. provincial members will be served by regional groups and local meetings.

Combined study routes planned

The Council for National Awards is planning to alter its regulations to allow students to "staircase" courses to follow a combination of full-time and part-time study.
Edwin Kerr, chief officer of the Association for Recurrent Education last week said the proposal for a change in the regulations is likely to be approved by the full council during the next academic year.
If the new plan was adopted it will allow polytechnics and colleges to put forward courses for validation with a choice of one or more modules in the first year and then to allow students to study a number of mature students of CNAA programmes.

Colleges 'should charge' for in-service courses

Colleges of education should charge fees for in-service training, Mr Hugh Harding, a former under-secretary of state of the Department of Education and Science has suggested.
Mr Harding, who was in charge of in-service education at the DES, was speaking at a conference organized by the in-service section of the National Association of Teachers in Further and Higher Education at Digby Stuart College, now part of the Rothamption Institute of Higher Education.
He said fee-paying would bring an element of rigour in that colleges could demonstrate that they had collected fee income.
In-service education in the past had gone to too small a proportion of the teaching force and he wondered whether the notion of "personal enrichment" tended to work in this direction.

Tories table 'Reds in college' motion

A full-scale inquiry into the influence of the Communist Party in all aspects of the education system is called for by the Conservative Party at its annual conference in Blackpool next month.
The Tottenham constituency association has demanded that the Conservative minister of education conduct a thorough investigation into the influence of the Communist Party "in all its various forms in the education system, in the teaching, publishing, administrative, and other spheres of education."
The motion is one of the fourth on education, and is the only one to be debated in the conference.
The motion is one of the fourth on education, and is the only one to be debated in the conference.

Isis may fold

The Oxford University student magazine Isis may cease publication, its publishing company said last week. The magazine trade was supported if strict procedures were applied in production. Until recently Isis had allowed students to do some production work.

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Penalties for Essex sit-in amended

Essex University Appeals Committee has quashed expulsion orders against five students found guilty of misconduct earlier in the year when they took part in an occupation of the campus as part of a nationwide protest over increases in tuition fees.
Instead, three students have been banned for the next academic year and a fourth for two years. Three postgraduates have been handed one or two years starting from January.
All 66 students found guilty by the special disciplinary committee were set up after the incidents had been found amounting to more than £100,000. The new verdicts were unanimous.

Government should leave science budget alone

In his first interview since taking office Professor Geoffrey Allen, SRC chairman, talks to Clive Cookson
With the Science Research Council likely to be £25m short of the resources needed to carry out its responsibilities over the next four years, according to last week's annual report, Professor Geoffrey Allen, who steps into the top job at the SRC next week, sees his main task as persuading the Government to stop locking away the science budget.
Overall policy within the SRC is unlikely to change dramatically under Professor Allen, who is a friend and admirer of the retiring chairman, Sir Sam Edwards, and his predecessor, Sir Brian Flowers. The three men were closely associated during the 1950s and 1960s at Manchester University, where Allen was professor of chemical physics, Flowers was Langworthy professor of physics, and Edwards was professor of theoretical physics.
Polymer became the main research interest of both Sir Sam and Professor Allen, and they collaborated academically, Edwards producing the theories and Allen coming up with experiments to test them.

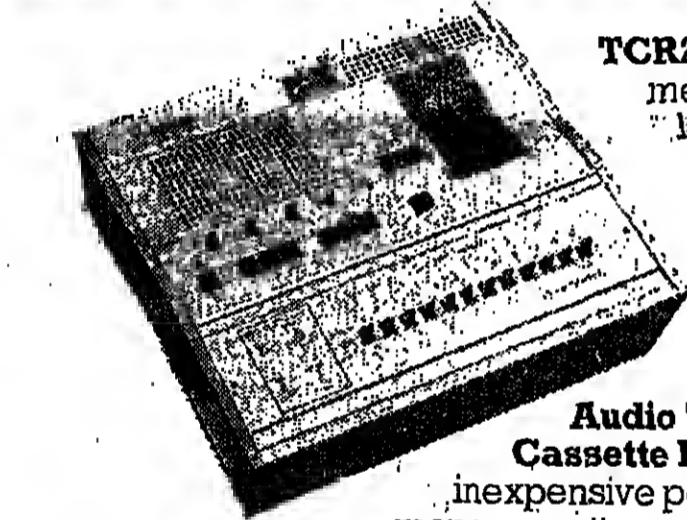


Brian Flowers, together with Professor Geoffrey Allen, made Allen aware, he says, that science alone did not produce the right atmosphere for the private industry and government—or the "private and public sectors"—as Professor Allen calls them—and to be involved too.
He agreed to be chairman of the SRC, as he accepted the chairmanship of its engineering board in 1976, for the satisfaction of "working in an excellent position to extract more funds for science. All four SRC boards—nuclear physics, astronomy and space, engineering and general science—have programmes "appropriate to the future needs of the country."
Professor Allen recognizes that the balance between SRC funding of expensive central facilities and small grants to individual scientists in university departments is going to be a highly sensitive issue during his four-year term as chairman. For the so-called "lumpy sciences"—as opposed to the big sciences of high energy physics, astronomy and space research—now require multi-million pound facilities like the new laser centre and neutron source at the Rutherford Laboratory.
Another major topic for debate will be the dual support system for university research, under which the University Grants Committee provides and pays for a "well-founded laboratory" and its staff, and SRC grants cover the extra costs of specific research programmes. Four years of financial cuts have made it difficult for the UGC to deliver its side of the bargain.

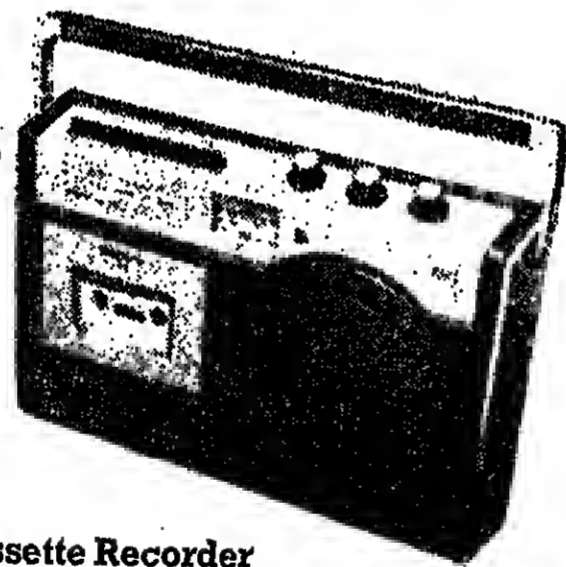
"The dual support system is under great strain now," says Professor Allen. "We are going to have to watch out that our university laboratories remain competitive with their international rivals."
Professor Allen became closely associated with industry in the course of his academic career—between 1970 and 1974 he worked half time at Manchester University and half time at the ICI Corporate Laboratory in Runcorn—and he has pushed collaborative schemes with industry strongly during his time on various SRC committees and the engineering board. Therefore, we can expect further expansion of postgraduate training programmes such as Cooperative Awards in Science and Engineering (CASE), Total Technology and teaching competes over the coming years.
Professor Allen, who is 48, is not looking forward to the public life his new post will bring him and he appears to agree with the comment Sam Edwards made four years ago when THE TIMES asked him about the prospect of dealing with journalists: "It's a necessary evil." But he recognizes that a public body spending £165 million has to explain what it is doing to the outside world, and he is clearly prepared to be helpful to the media.

He does not know exactly how or why he was chosen as chairman—indeed the accuracy of mystery with which posts such as his are filled in the UK has been a target for criticism recently.
He is unwilling to be drawn into the controversy, though he does say he would be quite happy if the job was advertised when the time comes to find his successor. "I would just hope that the people responsible would not be bound to choose from those who answered the advertisement and would still look round more widely."
Running the SRC will be a full-time occupation, but Professor Allen believes it is vital for him to remain active scientifically, as Sir Sam has. Therefore he intends not only to keep in touch with his research group at Imperial College, where he became professor of chemical technology in 1976, but also to give a dozen or so undergraduate lectures a year. "I love teaching," he said.

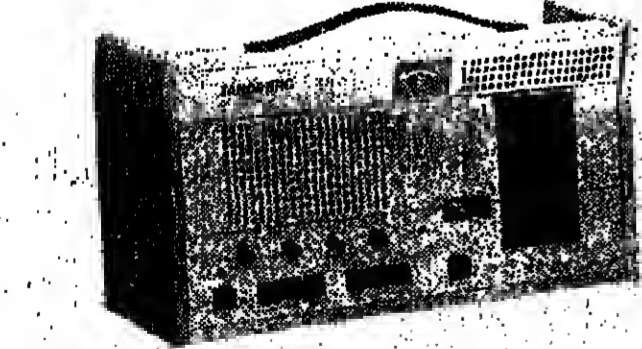
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Education Division

Tim Albert reports on the adult education and the arts conference at Nottingham University Gulbenkian offers plan to bolster state of art

A five-point plan to improve the state of both the arts and adult education in Britain was put forward at the end of the conference by the director of the Colston Gulbenkian Foundation.

The programme, which includes an updated Russell report, was suggested by Mr Peter Brinson, who sold afterwards that the Gulbenkian Foundation was prepared to put funds into the scheme—but would not say how much.

His first proposal was for talks to be held with the Arts Council and other interested adult education bodies to see whether they could act up a study to update the findings of the Russell report. "We would be aiming to find out what is going on in a practical way, what could go on with a better use of existing resources and also to demonstrate the possibility and the methods of partnership as one aspect of a new way forward", he said.

His second point was to develop a network of local working parties

Thring urges Hippocratic oath for engineers

Engineers and applied scientists should have to take their own Hippocratic oath, Professor Meredeth Thring, head of the department of mechanical engineering at Queen Mary's College, London, told a conference on alternative paths for planning held at Trent Polytechnic.

"The work of the technologist affects human life much more than that of the doctor," Under the oath, a draft copy of which Professor Thring showed the meeting, the scientist or engineer would promise to apply his professional skills only to projects "which after conscientious examination, he believes to contribute to the goals of existence of all human beings in peace, human dignity, and self-fulfillment."

The vow acknowledges that the goal requires an adequate supply of food, fuel, air, water, clothing and housing, access to natural and man-made beauty, education, and opportunities for everybody to work out their objectives and to develop creativeness and skill.

The vow concludes: "I vow to minimize danger, noise, strain or pollution of earth, air and water, destruction of natural beauty, mineral resources and wild life."

Professor Thring was speaking on "The creative society in the 21st century." He was optimistic about the future, but there was a serious note—even if for the moment it was not politically acceptable.

"It is not too late to prevent this civilization going the way that all the others have gone, but in

another 15 years it will be too late for that I have no doubt at all.

"There is a way up, but it means climbing a series of professional ladders. It means a human technology in which machines are the servants of man instead of his master."

He said population would level out at all nations had a decent standard of living. Energy and the fuel supplies could be met if the richer nations cut their needs.

"There is an optimum standard of living and we are over the top", he said.

He also suggested a national service for young people: "Not a year-long, but a year and a half, doing a worthwhile job. The answer to this of course is very simple. Instead of saying we will pay people for doing nothing, we say we will pay them for doing a worthwhile job."

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Lecturers fail to press need for languages

Modern language lecturers failed to press the need for languages in business, the findings of a survey by the British Polytechnic Association.

He told the Standing Conference of Heads of Modern Languages, Polytechnics and other colleges (SCMHL) that there had been a "poor effort" towards assessing the relationship between language performance and lecturer salaries.

"You have not developed a sustained effort to identify or train careers outside the well-trodden paths of teaching, research or administration. The high level of competence in language departments is being used to a very limited extent."

He urged the setting up of a project team from a number of polytechnic departments, to make a regional basis which would make a survey of the needs of industry. There should be liaison with the Association of Commerce and Public Administrators.

On this stringent note Dr. Terry launched the three-day conference on the subject of "Languages in the State of the Nation" which was the second to be organized by SCMHL and was attended by over 75 representatives of polytechnics and colleges, the Department of Education and Science and other interested bodies.

On students standards, Dr. R. C. Murray, principal lecturer in Cambridge College of Art and Technology, argued that courses where language was not linked with, for instance, social science, it was common to find that students' standards were low with the other disciplines.

There was no necessary connection between linguistic ability and intellectual ability, he said. "We have to face the impossible task of teaching our students to deal with abstract concepts and ideas."

Mr. L. P. Ariza, of Manchester Polytechnic, said that after one year of the polytechnic the students were far better than the post A-level Spanish students. More progress should be taken at polytechnics, he said.

Professor R. H. Tildford from Bradford University, suggested that industrial and economic texts might be utilized instead of literature. The language looked at might be that of the shop floor, or the professions. A placement scheme such as a course could be set up for work in a German bank for instance, or in a French bank.

A similar solution was put forward by Mr. R. Wessley, from the field City Polytechnic, who suggested the end of language departments. Instead, languages should be offered in polytechnics as part of other courses. There could be a special time to do a national language course for those ending to study languages in their own right.

In general, though, there was strong feeling in favour of more part-time courses in languages. Mr. A. M. Hillier, from the Council for the National Academic Awards, said the National Council had set up a working party which was looking at it.

It raised problems which did not exist with other subjects, such as the level of competence that could be expected at part-time. Some were actually studying it, but it could be a problem to get industry to sponsor or provide to study part-time.

In staff development, the main issue, it was proposed that a national level of research by SCMHL, or other bodies, was needed. The study of a language was another multi-disciplinary area.

Finally, there was the question of money. It was felt that the lecturer, or at least a major part of it, should be paid on a performance-based, with little or no salary increment was strongly recommended.

On the other hand

Campus creepies

While at Maine University Stephen King decided he wanted to be a horror writer, he first gained a secure teaching qualification to fall back on. However, when he qualified, there were no teaching posts available and so he had to write in a book.

University proved a climacteric for King. He wrote his first novel, "Carrie", which is based on his time as a student there will be published by Doubleday in January in a collection entitled "Night Shift". When you hear that one of his three best sellers is the horror novel "Carrie", you will realize that his mother pretty soon accepted the situation.

Now 30, large and a shaggy man, King is a writer and finds himself in the most mundane situations. He talked in a room and I got the feeling that the way his dark, rather expressionless eyes looked at me that I would probably pinch myself in a fictional town until some time.

He said that although his novel "Carrie" has been a success, he does not write horror for money, but views it as an altogether more literary exercise. Although horror has become commercialized, King said, it has a creditable literary history stretching back through Bram Stoker and Poe to the Bible and Beowulf.

He talked in an easy conversational way about mutilations and cold hands reaching you in the dark. "All my stories grow from the atmosphere of a place. For instance, my university in the winter had a gloomy, slumpy, isolated, middle of nowhere feel. Out of that grew a sort of Jack the Ripper story in which a stranger assaults, murders and mutilates female students and members of staff. It goes through the milky of dusk of salt. A campus is the perfect place for horror."

As if H.C.A. did not have enough trouble filling empty places.

Evening all

Evening classes are upon us once more and it is time for consumers to attend the first meeting before giving it up as a bad job. It is inevitable with evening classes that, although held only once a week, they are invariably on the one night that clashes with everything else.

My own experience in this line has been more than encouraging. The year before last I attended the first meeting and subsequently gave up on the course. The first night was in the hall, as it was the only room available. Two of the four class members were rather tweedy-looking ladies of a certain age and tongue who, when asked why they had chosen this course, replied "because we want something to put our germs into."

Last year brought no real improvement because I wanted to learn to play the tenor banjo for New Orleans jazz purposes and an "Jazz improvisation" course did not seem to be a group activity on the St. Louis Blues, but a form of dance class which used to be known as "Kallisthotes for office workers" but was changed because "people who were only there to see the show. One of the more exasperating things is to stand clenching a banjo in a room full of overwrought women in leotards nursing anxiously to the recorded sounds of Dodo Pinkham."

This year again I am once more trying to coax the inner London music lover out of his inner Londoner to play the banjo. They are none too keen and will not make any provision unless I can find 14 others who also want to learn. This strikes me as doubly surprising since, if I cared to go to Lewisham, I could find a banjo club in the main hall, but also have to make one.

The case, as I have explained to H.C.A. is fairly urgent: after two years teaching myself to play from a book, I can now open the case, lift out the instrument, clutch it and smile wryly at the audience. I can just play a concert tune and I am extremely depressed about the whole thing. If 13 of my readers, assuming that I have that many, could bring themselves to learn the banjo just to help me out of a spot, I would be pleased to hear from them before October 4.

OEDear

The above item, you will notice, contains the word "allometric". As soon as it was down on paper I knew that 90 per cent of readers—even among the most sophisticated in the world will not know what it means. Only know because I looked it up for a crossword yesterday.

Now this poses the daily dilemma of sensitive journalists: should derogatory words that have become common parlance be used or should they be left to the reader, or should they be explained in a footnote? I opted for the latter and deleted "allometric", replacing it with the word "allometric", a critical period in the life of a child. I then looked the word up in the complete Oxford English Dictionary and started to feel miserable as its history of usage unfolded. Here was this heroic little word that was so manfully outlived the word that was Athens, the grandeur that was Rome and the invincibility

Dons wave play on

Tom Stoppard, left, has been at it again. Philosophers and academics caused in large numbers through his latest play shown on television last week. A colleague and hard-nosed Stoppard-volunteer reports on it and reactions to its presentation.

Tom Stoppard likes philosophers, as characters in his plays, and after last week's BBC production of his Professional Philosopher, it seems, like him.

Several enthused about the play which deals with a very particular dilemma concerning a Cambridge professor of ethics during a visit to Prague for a philosophy congress. It was apparently sparked off by the hardships suffered by Eastern bloc dissidents, particularly those concerned with the Czechoslovak "Charter 77" document.

The philosophy dons I spoke to were in the play a success and Stoppard the playwright most likely

British scene viewed from down under



James Porter

One intriguing aspect of being in Australia for a period of time is the opportunity it gives to get a new perspective on the educational scene back in Britain.

Australian colleagues, red-eyed from the harrowing experience of viewing the demolition of their team on the cricket field, of course, have been taking rather less interest than usual in educational matters. However, the two items which caught their attention during the short, warm, Australian winter were the publication of the Green Paper and the "Think Tank" assault on the rigid BCT Council.

The Green Paper, coming out in the Department of Education and Science's favourite month of July, was far from a masterpiece, but many constructive and realistic pointers to the future of the central Policy Review Staff, the department prefers major reconstruction to demolition. Some of the more trenchant criticisms of the education service are found to be justified; the more extreme ones are not supported by the evidence.

The department also notes the major achievements of British education, which are often more neglected overseas than within the United Kingdom. The tone of the Green Paper is reflective, and the style is Elizabethan plainness.

Some of the most significant pointers to the future relate to the curriculum, which will need to be related to the establishment of an agreed means of assessment for schools and colleges. The Green Paper, with its emphasis upon the opportunity for vocational experience and fieldwork within the normal educational course, should be taken seriously.

Acknowledgement of the need to develop personal and social skills, and to provide a more rounded education, is a major achievement of the Green Paper, and one which is long overdue. It is a complex, interdependent world, and many of our problems to reflect our need to know about and understand other countries.

The current outburst of racial feeling and cultural prejudice crystallized by the annual Front Line make positive action along the lines proposed in the Green Paper imperative. It would be strange indeed if a major initiative within the educational system in the United Kingdom coincided with an abandonment of a British presence overseas for the British Council has done so much to encourage links of friendship, cooperation and understanding between Britain and a wide range of individuals and countries throughout the world.

If we accept the assertion that "many of our problems in Britain require international solutions", we must be in a position not only to know about and understand other countries but also to influence them. That is why the "Think Tank" should have taken on the academic and discarded his exa.

Arts Council looks ahead

The Arts Council is planning to set up an education department when financial stringency eases, Mr Roy Shaw, secretary general of the Arts Council, has said. "But until then we will have to do our best to develop cooperation with educational organizations."

Mr Shaw said promoters in both areas had a great deal to learn from each other, and this applied particularly to those working on the front line, "those who work in community adult education and in community arts."

"The Arts Council," he said, "had written into its charter a duty 'to develop and improve the knowledge, understanding and practice of the arts'."

The 1972 Local Government Act used the same words to describe the role which local authorities may play in the arts. "This does not mean, however, that the Arts Council should become a huge national organization for the direct provision of arts education," his charter also says that it should cooperate with other bodies to achieve its aims.

"This means, then, that the Arts Council, and by implication the regional arts associations, should link up with adult education organizations to achieve the twin purposes of diffusing the arts throughout the country and developing the knowledge and understanding of them."

Palestine talks for Blackpool

Palestinian students in Britain and supporters of their cause for independence are to submit a motion to the National Union of Students annual conference at Blackpool in December pressing for the issue to be debated there and officially backed by the union.

Meanwhile a national campaign to propagate the aims of the Palestine Liberation Organization was to be set up at a London meeting at which Palestinian students in this country, political parties, trade unions and student will be invited to send delegates.

These moves to win the Palestinian students' cause a wider airing were docketed at a two-day conference at Bangor University College earlier this month organized by the General Union of Palestinian Students and the Bangor University College student union, which has long declared its support for PLO's aims and has accepted the NUS of being the only student union in Europe with no policy on Palestine or the Middle East.

Following growing student pressure in recent months over the issue, a live-man NUS deputation last month visited Palestine to examine the situation. They went out on the invitation of the Union of Palestinian Students.



Darabuccas from Turkey and the Middle East find a soul mate at the Holy Musical Instrument Exhibition at the New Northcote Hall, London.

Union leaders often alienate students—NUS president

The image of the student politician on the trendy superstars of the union had to come. "These days we need to know what we are talking about, rather than dramatic-sounding slogans."

Miss Slijman said that student unions should be for all students whatever their political or religious beliefs. No student union had a mandate to deny the bicultural right of its members.

In recent debates the concept of banning rights to certain societies raised. The NUS wants to make it very clear that we regard this as totally unacceptable and will fight this, wherever it appears."

INTENSIVE STUDY VISITS TO FRANCE AND GERMANY

If you are involved with school administration, modern language teaching or links and exchanges, you are likely to gain considerable benefit and interest from the Central Bureau's scheme for Intensive Study Visits to France and Germany. This scheme offers responsibility for links and exchanges, heads of departments, teachers with advisers a subsidised visit of one, two or four weeks. Return rail/sea fares are paid and a grant of £44 a week for both France and Germany is made towards subsistence. (i.e.a.s or sponsoring establishments have been recommended to 'top up' this grant where appropriate.

The scheme has the following aims and advantages:

- It provides an opportunity for a detailed look at an equivalent establishment or district and for an objective assessment of how the teaching of modern languages is organised and administered in a different environment.
- It strengthens the links which have already been established between France and/or Germany and the UK at departmental, institutional and local level.
- It helps to explore and evaluate the advantages of teacher exchanges and gauge the long-term effects which these may have on individual teaching attitudes and methods.
- It encourages reciprocal visits and provides information and comment, possibly through meetings of returned members, about the further development of exchange schemes with other European countries.

Application forms can be obtained from the Central Bureau for Educational Visits and Exchanges, 43 Dorset Street, London W1H 3EN, or 3 Briensfeld Crescent, Epsom, Surrey, EH10 4TD. Closing date for Spring Term 1978 visits—31st October, 1977. Applications will still be considered for Autumn Term 1977 visits.

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The Institute of Linguists has moved and is looking to new horizons. Frances Gibb reports

Polyglot profession is on the move

The Institute of Linguists is moving to a new premises in the City of London. Its 11 full-time staff have been rehoused into a pleasant Georgian-style terrace opposite Highbury Fields, North London, after many cramped years at Newington Causeway, SE1, and they are spreading their wings.

The move will afford the institute a chance to make a number of changes and improve its service to its members. It prides itself as the guardian of the linguists' profession: regulating admission of members by professional examinations, ensuring the observance of a code of professional conduct and providing a means by which the public can recognize linguists as qualified to a professional standard.

It also offers an information service providing a specialized lexical library, which will now be able to expand, and an information department which deals with almost 2,000 inquiries every year.

Its main work, however, is examining. Every year some 7,000 candidates (over 7,500 last year) sit one of the institute's five levels of examinations. Last year there were examinations in 27 modern languages, which are marked by the institute's own part-time examiners, drawn from all over the country.

For full membership of the institute candidates must have passed the final examination, but there is also an intermediate level, which gives associate membership, and three levels of certificates.

The examinations can be taken twice a year at some 200 centres. Most of the institute's work is in educational institutions, and almost 60 polytechnics and colleges, predominantly in the public sector, make use of the examinations.

But the institute also operates in the commercial sector and tests employees—last year about 250—from the Savoy Hotel Group, British Airways and the Institute of Bankers, among others.

Members are accepted as equivalent to graduates for the purposes of the teachers' Burmham salary scales, an obvious advantage to teachers who do not possess a degree. Apart from teachers, however, there are lecturers, scientific, commercial and literary translators, interpreters, librarians and information scientists, as well as linguists in commerce, industry, government, the armed forces and the professions.

Membership confers both status and a link with the profession. Members receive a quarterly magazine, *The Incorporated Linguist*, and have access to all the institute's services.

The qualification is also recognized by the European Commission, so members can apply for jobs in member states.

Despite the so-called "language crisis", with the decline in applications to language courses at universities and polytechnics, and the disappearance of some languages from the school curriculum, applications for membership of the institute have increased.

This is in line with the growing popularity of vocationally-oriented language courses. Membership increased last year by 10 per cent, and there has been a continuous growth since the institute first started in 1910.

The expansion is indicative of the institute's changing role. Miss Mary Glasgow, the chairman, says: "We are striving to become more professional and to provide qualifications which will bring benefits."

The institute is tailoring its goods to suit requirements; becoming more conscious of the market. When it was founded, its origins were very much in the world of diplomacy. The founder, Lord Threlford, was a



Mr Michael Payne, Institute secretary, at the new headquarters.

One must use language in a special job."

The other side of the coin is that English as a foreign language is also expanding. Arabic, for instance, went from being connected with oil engineering to being a language used in the oil industry.

The institute sees itself as providing a substitute for the present A-level syllabus for those who are not taking an alternative to it. Miss Glasgow argues that it is wrong to say that language students, the holders of A-level courses, are not to be taken into account.

"The emphasis has shifted from grammar and word to spelling, and now to understanding. Very often what is spoken is not understood." For those who wish to use their languages for professional purposes, the institute has a diploma in translation, which was first awarded in 1955 to encourage cooperation between members of the institute engaged in professional translation. Membership of the diploma is open to those who have a postgraduate level diploma in the profession, safeguarding status, conditions of work, practice standards, and is at present protected for translators of legal, social and financial documents.

The institute is discussing the possibility of a more general diploma in translation, which might be awarded next year. The present one is geared to translators working in particular fields, and has a pass rate (15 to 20 per cent) because of the high level of technical knowledge required.

As it becomes more concerned with the needs of the profession, the institute is moving closer to the educational world. It has recently established an educational unit which brings the financial and other aspects of education into its doors to more students of a purely educational nature. The budget of about £50,000 in 1976-77 comes entirely from subscriptions and examination fees.

former diplomat himself who had a love of language. He wanted to increase interest in languages and "bring like-minded people together."

After the last war there was a surge of interest in languages, with the growth of package holidays and then the EEC. Not until the 1960s, however, did the institute begin to develop as an examining body. There was a major revision of the syllabus in 1960, when they became more precise, more specialized and more subdivided.

"Whereas 10 or 20 years ago people thought of languages as the classroom business of continents, now there is a growing awareness of the need for communication between countries," Mary Glasgow says, "now they are thought of much more in terms of professional tools for the specialist."

Another major revision is now due and a committee has already been established to take a close look at the syllabus.

Mr Michael Payne, the institute's secretary, says that languages for special purposes is likely to be a growth area for the institute. More and more professionals, engineers, doctors, lawyers, need to know French or German in their specialist subject. "If someone has a degree in languages, the number of jobs open to him are extremely limited."

Medical check takes patients' word for it

Clive Cookson reports on a 3-year, £50,000 GMC investigation into medical education

Medicine is one of the fields in which universities have least freedom to decide what they are going to teach and how they are going to teach it, for they have to operate within the legal framework of the outdated Medical Acts and under the supervision of the General Medical Council.

However the GMC's mammoth survey *Basic Medical Education in the British Isles*, published this week, shows that a remarkable variety of curricula and methods of teaching, student selection and assessment exists within these constraints.

The survey was carried out over three years at a cost of more than £50,000 by a team of four based at Dundee University Centre for Medical Education. They have drawn a comprehensive picture of the 33 medical schools in the UK and five in Eire as they see themselves. The investigators deliberately avoided evaluating the information they collected and they present no conclusions or recommendations.

As the senior researcher, Mr Richard Wakeford, pointed out they could not have kept the goodwill of all 38 schools if they had been assessing their methods and judging their effectiveness.

The team worked through a GMC correspondent in each institution. He or she completed a lengthy questionnaire on the school as a whole and distributed up to 40 subsidiary questionnaires to those teaching the component disciplines and specialties of the medical course. Mr Wakeford visited each school three times to clarify and expand upon the replies. Students' views were not canvassed.

The results are presented in two volumes of 450 pages each. The first describes in general terms the schools' objectives, curricula, current developments and obstacles to their achievement. It also contains an individual profile of each institution.

Volume two comprises 32 separate reports on the component subjects on the medical course. Unlike volume one, these are presented anonymously and they reflect the feelings, fears and hopes of the respondents as well as facts about their teaching arrangements.

The survey shows that all medical schools have undertaken their curricula in response to the GMC's Recommendations as in *Basic Medical Education of 1967* and the *Todd Report of 1968*. But some have changed far more than others. The early pre-clinical years, when the basic medical sciences are taught, show the greatest variation. Three schools, Leicester, Oldham and Newcastle, have a "wholly integrated structure. Teaching is based on themes and systems rather than delineated by departmental boundaries."

At the other extreme are 13 schools where the pre-clinical subjects are still treated entirely separately and there is no "horizontal integration" of subjects taught concurrently.

All schools now give pre-clinical students some clinical teaching, though only 16 reported that it was "significant" in terms of quantity and application to future clinical training.

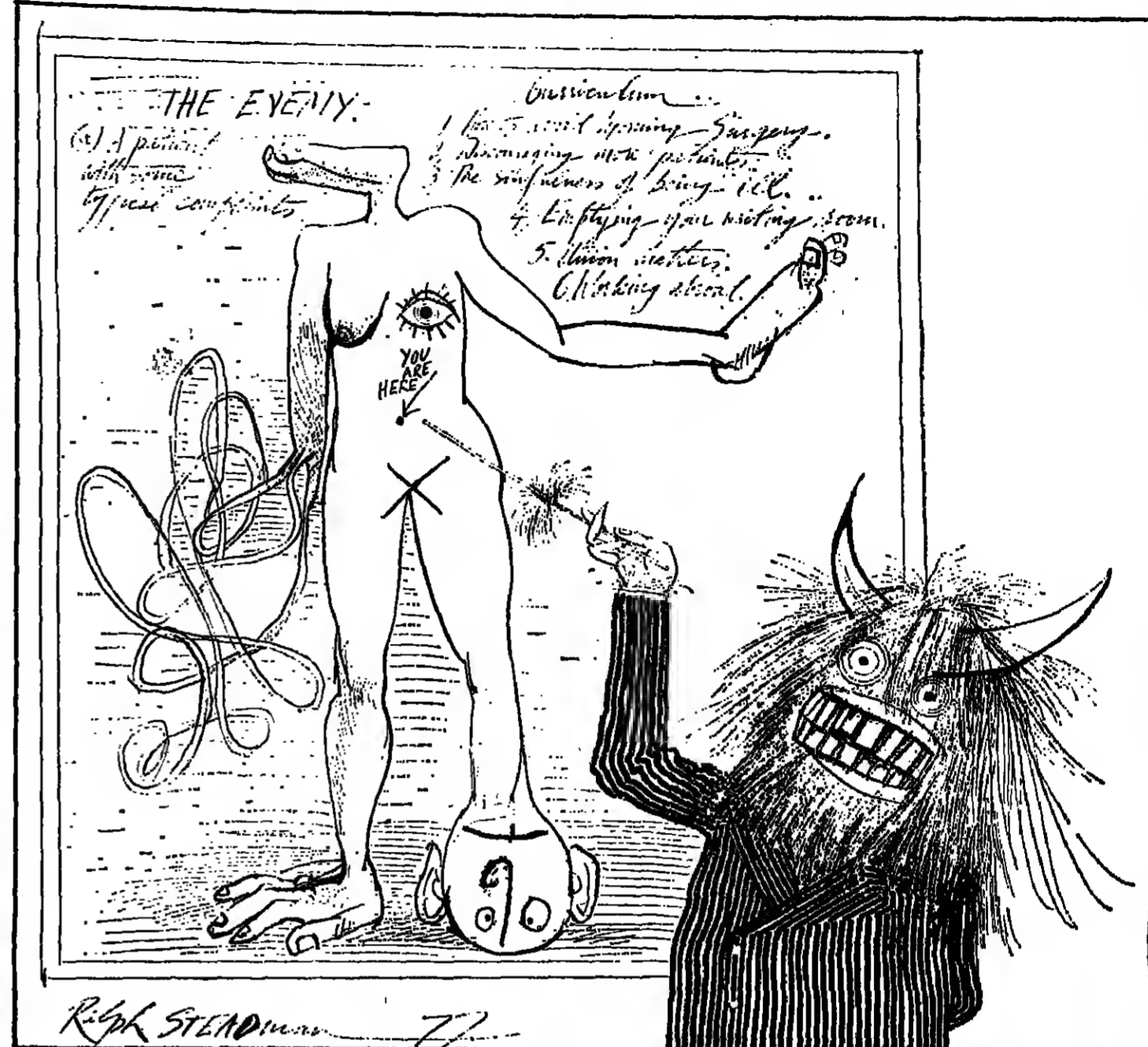
The amount of practical work required differs widely. For example many medical students still spend long periods cutting up cadavers, and at some schools dissection is a central feature of the anatomy course in terms of time devoted to it and the importance attached to it. "Students acquire familiarity with the human body through working on it, their hands become more sensitive and dexterous and they grow in awareness of the relationship of one part of the body to another through direct tactile and visual contact."

On the other hand the new medical school at Southampton has decided as a matter of policy that no dissection will be required. At some medical schools "students are invited to come for open house dissection. This is reported to be eagerly accepted and they can be found in the anatomy dissection rooms in the evenings and on Saturdays, supplementing the official diet (sic) on their own pace and on sections of their own choosing."

In the clinical years the amount of curriculum devoted to specialties such as ophthalmology, dermatology, infectious diseases, orthopaedics, otorhinolaryngology and venereology varies widely. "Some schools arrange a few weeks' full-time teaching, others will arrange a few hours' teaching here and there for the same subject."

The total length of clinical courses ranges from 90 to 144 weeks. The report notes that the new two-year clinical course at Cambridge, which has been criticized for its brevity, is longer than the three-year clinical course of University College, Galway. Scotland generally takes less time in the 12 hospital serving local communities and provincial schools (27 weeks) than the English hospitals (33 weeks) and the English provincial schools (27 weeks).

Use of "peripheral" hospitals—non-teaching hospitals serving local communities and giving students experience of typical clinical practice in the NHS—is increasing. Twenty United Kingdom medical schools now send



students to peripheral hospitals for 6 months or more, an ethos that negotiated attachments primarily to solve overflow problems rather than to convey concepts, outlooks in them. The largest such operation is carried out by Manchester University, which disperses 275 medical students to hospitals throughout North-West England for the whole of their second clinical year.

It is a survey detected a fairly general movement to extend students' experience beyond the traditional hospital-based clinical disciplines into the community outside. The time and resources for teaching community medicine are expanding, and by next year all United Kingdom schools will include general practice in their curricula.

In 17 medical schools, teachers of social medicine are concerned to do more than impart information; they hope to influence students to adopt and retain new attitudes. The wish them to become permanently conscious of the wider context in which disease develops and medicine is practised, and to respond appropriately by being more "rounded" competent doctors. Their care of individual patients will benefit from their understanding of the wider social picture.

Four respondents go further and specifically try to oppose the attitudes implicit in the rest of the clinical course. "They deliberately provide a contrasting model of viewing medical practice, showing that the 'clinical cure' ethos of short-term sophisticated medical treatment for individuals should be supplemented and sometimes replaced by 'clinical care', which seriously involves prevention, long-term surveillance, and non-medical work."

"Unfortunately," the report says, "teachers still have to struggle with prejudices carried over from a previous era, and this is sometimes compounded by suspicions of (particularly) sociology, and other innovations such as attempts to measure the effectiveness of care. Seven schools mentioned this difficulty: they are conscious of their image as a woolly, unglamorous, allegedly unsound subject. Two of them and two others however feel they can go no further in placing their philosophy without medical change of the whole curriculum. The unwritten assumptions beneath the rest of the medical curriculum are too much to contend with."

Of all the topics taught in medical schools, psychology and sociology give rise to the most dissatisfaction, both among those actually teaching them and among other academic staff. Problems arise as a result of their "newness", of trying to condense major university disciplines into a few hours of non-specialized instruction, of confronting hostility among staff and students, and of trying to convey concepts, outlooks and methodologies fundamentally different from those of the physical sciences.

A few GMC correspondents complained that outdated change seemed sometimes to be undertaken for its own sake; others pointed out that change would always be trying to convey concepts, outlooks and methodologies fundamentally different from those of the physical sciences.

Twelve medical schools stated that they place greater than usual emphasis on the scientific basis of medicine. This academic philosophy is most common in the older-established schools.

Academic excellence is an extremely important entrance criterion at all medical schools, and 10 schools explicitly mention their previous academic performance. Seven seek entrants who show evidence of strong "motivation" for medical career; others deliberately disregard personal attributes such as motivation, having found them unreliable indicators of the sort of doctor who will emerge from the course five or six years later.

Attitudes to interviewing applicants vary accordingly: 21 schools normally interview everyone, others deliberately exclude interviews from the selection procedure but invite successful applicants to visit the school after an offer has been made.

The Dundee team collected far more data than they were able to pack into two printed volumes, and the GMC is using it to provide an educational information service for medical teachers and administrators.

Basic Medical Education in the British Isles is not meant to be merely a glorified reference book, however. The GMC commissioned the survey partly as a replacement for the old and rather unproductive ritual of medical school "visitation", and it intends to use the information received as a factual basis for future policy decisions about medical education.

The report is published by the Nuffield Provincial Hospitals Trust, St. EA. for the two volumes.

The British Association for the Advancement of Science

invites entries for the Trident Television Award for Communication in Science 1977/78

For the past two years the British Association for the Advancement of Science has collaborated with the Trident Television Group in awarding a prize known as the Trident Television Award for Communication in Science.

The purpose of the award is to broaden public knowledge of important ideas current in any area of science. The winner is selected partly for his or her contribution to scientific thought and partly for his or her ability to communicate broad scientific concepts.

The award is open to all British scientists working in universities, Government research establishments and industry who have published original work.

The award consists of a medal, £1,000 in cash and participation in a nationally networked television programme originated by Yorkshire Television (member of the Trident Television Group).

- Judges include:
- Professor W.T. Bodmer, F.R.S., Professor of Genetics, University of Oxford, Chairman, B.A. Study Group on Social Concern and Biological Advances.
 - Sir Montague Finnleton, F.R.S., Chairman, Sears Engineering Ltd, Formerly Chairman, British Steel Corporation, Past General Secretary of the British Association.
 - Sir Iwan Maddock, C.B., O.B.E., F.R.S., Secretary of the British Association.
 - Sir Duncan Dallas, Editor, Science Programme, Yorkshire Television.

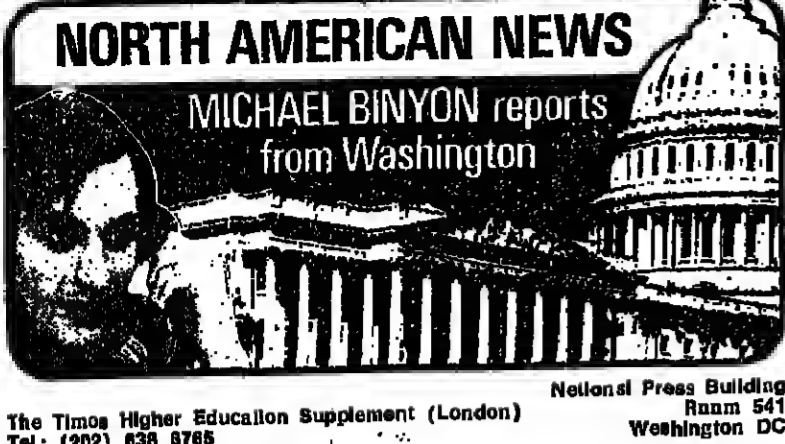
Applications should reach the British Association by Tuesday, November 15th, 1977. For application forms, please fill in coupon.

To the British Association for the Advancement of Science, Fortess House, 23 Savile Row, London W1X 9AH.

Please send me _____ application forms for the Trident Science Award 1977/78.

NAME _____

ADDRESS _____



NORTH AMERICAN NEWS
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Falling standards: 'society to blame'

A change in America's social attitudes is to blame for the long and steady decline in the test scores of school leavers, and not the tests themselves or the schools, according to a new study.

The long-awaited report by the College Entrance Examination Board says there is no single reason for the decline. The drop between 1963 and 1970 was due mostly to changes in the composition of the group of students going on to college.

The report is by a special panel set up two years ago to look for the reasons underlying the decline in the scores on the Scholastic Aptitude test, taken every year by about one million school leavers hoping to go on to college and university.

The advisory panel consisted of a number of distinguished educators, and was the direct result of public anxiety that a generation of school leavers cannot read or write a correct sentence of English or cope with simple mathematical problems.

The report said that the decline was related to the "notable extension and expansion of educational opportunity in the United States." It pointed to the "low level of educational attainment of women as part of a new, test-making population that tended to lower the average scores."

But since 1970 other factors had come into play, including relaxed teaching and learning standards, television, changes in the family's role and social turbulence.

The report notes the turmoil of the Vietnam war, political assassinations, rioting in the cities and the "corruption of national leadership" over the past decade.

"There is simply no way of knowing how much the trauma, between 1967 and 1975... affected youths' motivation—and whether there was consequent effects on their college entrance scores. This probably made quite a difference."

Since 1963 the average SAT scores have dropped 49 points on the verbal section and 32 points on the maths section. The score scale runs from 200 to a possible highest score of 800. This year's national mean scores were 429 in verbal and 471 in mathematics.

Enormous importance is attached to these scores. In the absence of any nationally validated school leaving examination, it is the only result guide the general public has to standards achieved by those leaving school.

As a result of its two-year inquiry, the report recommended a "broad inquiry into the function of tests in the passage point between high schools and colleges." It also recommended that the public be educated on standards achieved by those leaving school.

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More support for Burt's inherited intelligence

The theories of the late Sir Cyril Burt were vigorously defended at a recent meeting of the American Psychological Association in San Francisco.

Dr Billis Page, president of the association's division of educational psychology, said Professor Burt had "argued powerfully" for intelligence as an inherited trait.

He said Burt was being attacked not for his scientific record but for his theories. "The aim is to discredit him, not to measure or discredit what he believed," Dr. Page said.

He pointed out that experimental results obtained by Gregor Mendel, who developed the first fundamental laws of genetics, and the methods used by Jane Newton in some of his research, might have been manipulated to suit their theories.

Despite these "aims", he said, "one thing you may not do: you may not reject Newtonian physics nor Mendelian genetics."

One of Burt's main disciples in the United States is Professor Arthur Jensen, the controversial Berkeley educational psychologist, whose theories on the links between race and intelligence caused a political furor when they were published in 1969.

In a recent videotaped interview shown at the Second International Congress on Twin Studies in Washington, Professor Jensen dismissed the charges that Burt was too old and infirm to have redone the statistical computations in his papers between 1955 and 1966 purporting to show strong correlations between the IQ level of identical twins reared apart.

Burt reported the correlations between the twins' IQ scores in all three studies were 0.771, with 1.00 being an exact match. Professor Leon Kamin of Princeton University and other critics have argued that the probability of such correlations recurring was very remote.

Meanwhile at the conference the controversial argument over race and intelligence continued with a report by Professor Sandra Scarr of Yale University that recent studies of the IQ levels and school achievement of black and white adopted children indicate that genetic background and family environment, but not race, have substantial impact on intellectual performance.

Professor Scarr says that her own study of black and mixed-race children adopted by 101 white, working and middle-class families, the adopted children averaged 110 on IQ tests, well above the average of 90 generally scored by black children in the United States.

A comparison with 104 families that adopted white children showed that IQ scores of the white adopted children were very close to those of the black children.

McGill fights 'takeover' image

McGill University in Montreal is launching a massive publicity campaign to correct the wrong but generally held opinion that it is about to become a French-speaking university.

At the same time this ancient and prestigious institution is to intensify its recruiting campaign outside Quebec in an effort to offset the demagogic effect the new controversial Quebec language laws will have on its intake of students from within the province.

Although the French language legislation—known as Bill 101—does not affect higher education, its strict limitations on the rights of English-speakers to send their children to English schools in Quebec will, the university fears, sharply reduce the pool of properly qualified English-speaking applicants to McGill from Quebec. The university anticipates a fall in its total numbers in any case because of the declining birth rate.

McGill is especially worried that in all the controversy over the language law, the impression has been created that the university's days as an English-speaking institution are numbered. McGill asserts that it has no intention of teaching in French, or even becoming bilingual, and it is doing its best not to encourage French-speaking Quebecers to apply.

Public misconceptions have certainly spurred McGill into being less aloof in recruiting. The university's proportion of students from outside Quebec has dropped steadily as other Canadian universities were established, and since November—when the present separatist Government came to power in Quebec—the number of out-of-province and overseas applicants has dropped noticeably.

Embarrassingly, the drop has been balanced by a huge surge in the number of French-speakers wanting to come to McGill. The university does not administer any language test, but makes few concessions to the French-speaking students. These now account for 15 per cent, a figure which the university would not like to rise.

Although it insists that it will not place a quota on French-speakers, a sharp jump would create difficulties, especially in the provincial Government.

An increase in the number of French speakers could put pressure on the university to begin regular courses in French. It already runs a number of classes in French for lawyers and doctors who need the language to be able to practice in Quebec, and any student is allowed to write his examinations in French.

Ironically, the upsurge in French applicants is probably because of Bill 101. Many French speakers feel their chances of learning English in a multilateral Quebec will be reduced, and for economic advancement they want to study in the language of the majority in North America.

Indeed, many of the present Quebec Cabinet are themselves McGill graduates, including M Jacques-Yvon Morin, the Minister of Education. The surge also reflects discontent with two of the largest French-speaking institutions, Laval and the University of Quebec, after their lengthy strikes last year.

70 miles of shelves

The University of Texas has just opened a new library with capacity for 3,250,000 books, which it claims is the third largest academic library building in America.

Named after two black and Mexican-American teachers at the university, the Perry-Castañeda Library will allow for 15 years of growth until its 70 miles of shelves are full. So far about 1,500,000 volumes have moved into the new structure, which will serve as the main research library for the university's 41,000 students.

Immigrant scientists escape job freeze

The universities, despite their financial straits, do all in their power to retain the best of these. They would gladly take in more, particularly of the younger, highly promising researchers and scholars. The Planning and Grants Committee is giving the universities a special allocation in the coming academic year to enable them to take in such bright young people, Israelis as well as immigrants.

Government financial assistance is also given for up to three years to industries and research institutes which employ immigrant researchers on the understanding that they will be absorbed after that period if they prove their worth.

Many graduate immigrants, unable to find employment in their specialties, undergo retraining in courses arranged by the Ministry of Labour. Since 1970, 5,000 graduates have undergone retraining in 200 different courses run by the Ministry.

This Ministry has recently inaugurated a new programme of re-training and adaptation courses for immigrant engineers in employment to enable them to adapt more easily to Israeli conditions; 126 engineers have just completed the first such course.

The Ministry of Education and Culture is also engaged in retraining immigrant graduates. Engineers, mathematicians, and scientists are successfully retrained to become teachers in technical and professional schools and women graduates in chemistry to teach domestic science in upper secondary classes.

The participants in all these courses are predominantly immigrants, more than 2,000 students through out Denmark boycotted classes for several weeks in support of colleagues at Roskilde who were protesting over the Government's decision to halt intake to the two-year

Would-be economists head scramble for places

Fewer than one out of four of the 82,933 candidates sitting the entrance examinations for Greek universities, graduate schools and technical colleges will find a place for the 1977-78 academic year.

They are competing for 12,340 university places and some 7,000 vacancies in job-oriented technical colleges. Among the candidates, 19,517 were trying for the universities—but 42,075 of them included the higher technical colleges as a second choice. There were 3,422 candidates who chose to try only for the technical colleges.

The most popular field was economics, where there are places for 11 per cent of the 25,703 candidates. Engineering and sciences, law, medicine and philology followed in the order of the number of candidates.

Competition was most intense for architecture, where there were 4,131 candidates for 120 vacancies, and medicine, where 9,633 students vied for 540 places.

This year, as in previous years, about 60,000 young Greeks will be left out of the system of higher education. The options remaining to them will be: universities, second-year re-entry to the entrance examinations next year or employment, where secondary school qualifications suffice.

It will be 1980 before the Greek Government's educational reforms are expected to eliminate the system of university entrance examinations open to all secondary school graduates. The new system begins the selection process after the first three years of secondary education by streamlining pupils into three types of lycées: for pre-university or vocational studies. Upon successful completion of the three-year courses, the pupils of the general and classical lycées will qualify for higher education without entrance examinations, and those of the vocational lycées will be qualified for jobs.

Crashed union travel firm rescued by airlines

The Australian Union of Students' travel company has been rescued by Qantas and other airline creditors.

The company, which seemed likely to fold because of financial problems (THESE, August 26), is now back in business owing under the same management but with a much lighter accounting system.

Qantas proposed very stringent conditions on its rescue operation. They include a trust fund accounting system which virtually makes AUS Travel little more than a collection agency for the airlines.

AUS Travel had little choice in the matter: it is obliged to liquidate its

'Red' campus gets fresh vote of confidence

A pledge that teaching will continue at the controversial, dispute-prone university centre at Roskilde has been given by the Education Minister, Mrs Rita Bjerregaard.

In an interview in the latest issue of *AC-debit*, the monthly journal of Akademikerne Centralorganisation, the trade union for professional workers, Mrs Bjerregaard said she had "in mind that the centre should be closed down" despite Opposition pressures in parliament to do so.

The minister told the journal: "It is my intention that the centre should solve its own problems and function like some other universities. Roskilde is included in the ministry's long-term plans and will have its share of students during the coming year." However, the reorganisation of teaching in more conventional lines would have to continue.

There have been consistent demands to either close the seven-year-old experimental centre or make it an affiliated college of nearby Copenhagen University, ever since the Government's first attempts to get the centre to float on its own feet in 1967. In the past there has been strong criticism that projects took too much time and failed to relate to traditional degree courses elsewhere. Partly because of this, and the centre's reputation as being a haven for Marxists, Roskilde graduates have had more difficulty than most in finding jobs.

Demand for first-year places of the centre this autumn has been poor. With 330 places in 11, there were only 40 first-choice applicants for the 100 natural science vacancies and 60 for the 230 in the humanities.

Education Ministry figures show that there were only 56 first-choice applicants for 100 places in natural science courses at Denmark's five universities. This compared with the humanities and theology (70), social science (74), psychology and teacher training (100) and medicine (127). On the other hand, there were 136 applicants per 100 places at technical, professional and commercial colleges, including 254 per 100 at colleges of education.

After Mrs Bjerregaard suspended the centre's normal administration and brought in a three-man external rector to supervise changes in December 1975, more than 200 students were temporarily expelled for refusing to let ex-ams and Roskilde was only re-opened by closure by a two-vote majority in parliament.

Earlier this year, the centre's future was again threatened when more than 2,000 students through out Denmark boycotted classes for several weeks in support of colleagues at Roskilde who were protesting over the Government's decision to halt intake to the two-year

Budget keeps lid firmly clamped on expansion

Higher education and research is to get 5,364m guilders (about £1,475m) in the 1979-81 budget for 1978. This represents an increase of 523m guilders on last year's figure.

The tone of the budget as far as higher education is concerned is ever more restrained than the previous years. The Socialist caretaker Government is still attempting to form a new Cabinet, and consequently no budgetary proposals can be made. Figures for this year are almost entirely based on the working through of the Government's ongoing programme before its last March.

The broad allocation of funds for this year includes: higher vocational education: 808m guilders (969m last year); running costs of the universities (including academic hospitals and inter-university institutes) 3,778m guilders (3,407m); higher education and university research 129m guilders (116m) and research in institutions directly financed by the Education Ministry 340 guilders (319m).

Research policy is again aimed at making universities end Government-financed institutes increasingly more accountable for the use of limited funds. Building expansion will be severely restricted in the coming years.

Meanwhile, in the legislative programme for this coming year parliament will have to discuss a draft law on university entrance examinations next year or employment, where secondary school qualifications suffice.

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Teacher training bears brunt of cutbacks

By Günther Kloss

Bavaria is to introduce a new higher education development programme. A central feature is the reduction in the number of teacher training places at all types of higher education institutions from 31,000 to 21,900.

The 125,000 student places currently available on a permanent basis will be increased by only 5,000 by 1984. But a special "emergency programme" will create an additional 46,000 places.

The programme involves fully using or even over-subscribing existing capacity, transferring permanent posts from under-used units to departments where demand is greatest and instituting between 1979 and 1990 special grants for temporary posts and equipment.

Bavaria's smaller and more recent institutions of higher education will grow fastest, with the additional specific aim of achieving a better regional balance of student places. For example, the new universities

Forecast of many more 'foreigners'

Large increases in the number of overseas students at French universities are forecast in a recent report from the *Office Nationale des Universités*, France's equivalent of UCCA.

Last year there were 821,500 students attending all sections of higher education, including the two-year university institutes of technology. Overseas students numbered 96,500.

The *Office Nationale* estimates that the number of foreigners will more than double by 1985. By the mid-1980s, one student in five will be a non-French national.

Between 1973 and 1976 the average annual growth rate for French undergraduates was less than 3 per cent. However, the enrolment spiral among foreigners continued. Over this period it increased by half again from 66,500 in 1973 to last year's 96,500—an annual growth rate of 13 per cent.

The conclusion is obvious. If French higher education has expanded it is only because of the massive influx of overseas and European students.

Most non-French undergraduates are from African countries; roughly 40 per cent from the ex-French Commonwealth, Morocco, Tunisia and Algeria.

If there is some satisfaction that in French university education is still attractive to students from Third World countries, there are nevertheless certain misgivings about the type of course they tend to follow. The report criticises the lack of care in making sure that the qualifications gained by such students are in keeping with the economic, educational and manpower needs of their home countries.

Particularly disturbing is the growing move into arts or social sciences. In 1973/74 one overseas student in four opted for these subjects. By 1977 the figure was four out of 10.

If there are problems with overseas students, student exchange between the universities of the Nine is no less of a thorny issue. French undergraduates seem reluctant to study abroad.

The French student exchange rate is in the red. With the possible exception of West Germany, France imports more EEC students than any other Common Market country. This has unwelcome financial consequences.

The Government reckons that the cost of student to the region is 5,000 French francs (€58) a year. Failure to balance out the "student exchange market" between France and other members of the Nine is costing the country around €3m a year.

Following the publication in 1975 of the Macédo report on student mobility in Common Market countries, the French have not been backward in pointing out the apparent lack of British commitment to Europe. The accusation, though well-founded, is repeated in the report. Foremost in fostering European student exchanges, it suggests, are Belgium, West Germany and France. The hint is that Britain should mend her ways.

France

PARIS

The Government's five-month-old tax on book and periodical imports has paradoxically emerged as a hidden blessing for the long-term plans for the reorganisation of South Africa's university libraries.

The 15 per cent customs surcharge, affecting the 95 per cent of South Africa's academic books which are imported, originally drew sharp criticism from a wide range of academic groups, including the Committee of University Principals, the National Library Advisory Council and individual universities. It drastically reduced their purchasing power, the tax has further hit libraries struggling to cope with rising book prices.

But in the longer term, the tax is certain to boost plans for the national coordination of library acquisitions presently being formulated by two top-level Education Department committees.

One of these committees, under the auspices of the National Library Advisory Council has, over the past five years, been studying the feasibility of a central computerized register of library holdings and purchases called MARC (Machine Readable Catalogue). Due next year, the committee's report is expected to favour the centralization of the purchases of scholarly libraries throughout the country.

Professor Don Keating, head of the school of librarianship at the University of Cape Town—which has the largest university bookstock in South Africa, at 670,000 volumes—has estimated that such pooling will enable universities to slowly reduce their library backlog, which has accelerated since the introduction of the import tax.

South Africa's academic libraries together hold about two million volumes, of which only one-fifth are purchased jointly every year. Professor Keating estimates that national planning would enable universities to have access to over 100,000 more titles annually.

The success of such a plan would depend not only on efficient communication between individual libraries, but also on their willingness to adapt to a new and unified system which would entail a tightly integrated distribution network between "specialist" libraries to cater for the academic community's growing needs.

The plan's second component—a theoretical study of the feasibility of a national library network by the N.I.A.C.'s division for scholarly libraries and information centres—has estimated that it would take 10 years to come to a term of national coordination to become effectively established, if the MARC report is favourable.

Even if the MARC report is accepted to pave the way for a nationally integrated library system, there are other potential snags. It is still uncertain whether the Department of National Education, under whose jurisdiction academic libraries fall, is prepared to finance the cost of such an undertaking. One reason is the Government's current policy of cutting expenditures to a minimum. With the cut in the Education Department's budget earlier this year, it seems unlikely that there will be large-scale financial support for such an ambitious project.

Initially, the tax on imported books and periodicals rebounded on the Government. Most university and State libraries are State-subsidized, so that the spending power diverted to paying import duty is likely to lead to increased pressure on the Government for larger subsidies.

"The Government is taxing itself, ridiculous though it may seem. And the administration involved is ridiculous," said one librarian who, like many others, is hoping that the Government will quietly drop the tax for academic institutions.

Book tax speeds up library planning

from Martin Feinstein

CAPETOWN

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LETTERS TO THE EDITOR

Qualifications and training of engineers

Morale as well as money

The present university teachers' pay claim is as much about morale as about money. On whether it succeeds or not depends not only the standard of living of university teachers next year but also whether the universities as a whole manage to shake off their present mood of collective depression.

Two unhappy events were largely responsible for the onset of this depression, the collapse under the pressure of intense inflation of the quinquennial system of university finance and with it many cherished ideas about their financial independence, and the peremptory cancellation by the Government of the cost of living increase awarded to university teachers. A little was done to remedy the first when the University Grants Committee was allowed earlier this year to indicate tentative totals for university income in 1978-79 and 1979-80. A little should now be done to remedy the second by the Government agreeing to rectify, at least partly, the "anomaly" in university teachers' pay.

This "anomaly" has grown to almost Freudian proportions in the collective consciousness of university teachers precisely because it seemed, and still seems, so unfair. At a time when there was fairly widespread public concern about the performance of school teachers they were awarded a substantial salary increase, while university teachers about whose performance there could be no similar anxiety were refused.

The comparison with their colleagues in advanced further education is even more painful. The Houghton committee argued for broad comparability of pay between the university and non-university sectors of higher education, a principle that THE TIMES would endorse. A substantial number of university teachers, of course, are not even prepared to concede that much: they believe they should be paid more. However, everyone surely can agree that they should not be paid less which is too often the case today.

The less charitable will argue an incomes policy must always be a blunt weapon. Certainly that has always been true in the past and it is often the reason why such policies collapse under the weight of the anomalies they have created: yet to believe that this is inevitable and that incomes policy can not be sharpened into a rapier that can discriminate between such polychromians in the basis of public policy is a depressing conclusion for higher education. Everyone working in universities, polytechnics and colleges is subject to a permanent though covert incomes policy as THE TIMES argued a few weeks ago.

The less charitable may go on to argue that in any case it is the Association of University Teachers

Sir.—So some engineers want to take into university engineering courses students without A level physics (THE TIMES, September 2). Of course there is nothing like taking the battle into the enemy's camp, but it does seem a little strange to make this proposition in the British Association for the Advancement of Science (my italics).

But does "enlarging the pool of candidates" mean increasing the number of students at any cost? Physics is not merely the study of subatomic and high-energy phenomena but includes all what would be known as "heat, light sound, electricity and magnetism and properties of matter".

If engineering graduates are to be truly professional engineers—innovators and not just perpetuators of existing practice—they need this background. A student with, say, mathematics and geography at A level would have a lot to make up compared with A levels in mathematics and physics.

If the aim is to increase the number of students of all costs, why not give up mathematics as well? I doubt whether Brunel knew much calculus or trigonometry or even such Lagrangians, but he was a superb engineer—in his day, and there's the rub!

Yours faithfully,
 A. HELL, Professor of electronic engineering, Hull University.

The publication of the British Association Report "Education, Engineers and Manufacturing Industry" does much to emphasize the deficiencies in the supply, deployment and rewards of engineers, but in several respects is disappointing (THE TIMES, September). It is difficult to criticize the work of the investigating team which they were not given much time by the coordinating committee to undertake any fresh survey work but, nonetheless, disappointing when one reads the terms of reference.

Reference is also made in the supporting papers to the views of such forward and professional engineers regarding salary, status and intelligence of other professions compared with four types of professional engineer. It is not surprising to find that the excellent, legal and accountancy professions are held in high esteem. What is surprising, however, is that the investigating team did not recommend the adoption of a similar professional model for the future development of the engineering and manufacturing management profession. After all, we lead the world in these three professions, why cannot we, at least, consider adopting a similar three-stage model along the following lines.

The first of these is the cognitive stage where a minimum amount of knowledge is acquired before the neophyte is exposed to the real world of industry.

The second stage is one of planned experience under supervision, during which the knowledge and concepts gathered in stage one are applied and tempered by the realities of industry and the influence of other disciplines. Also completion of which the young professional is given a partial licence to practice.

The third stage is a monitored but unsupervised period during which the performance of the young professional is measured against previously determined and specific objectives. Successful completion of this stage gives the professional the full licence to practice.

High levels of score and talents in this respect there is within engineering and manufacturing management a need to develop a elitist approach, entrance to course by examination not on the basis of system operated in France for the Grand Ecole.

A powerful professional body to supervise and control standards, practice and professional conduct of members.

An awarding authority to award and withdraw the licence to practise.

In my view, the establishment of such an approach to education and training together with the award of licences to practice, through a professional body, will do much to raise the standards of the engineering profession in the eyes of society.

Yours faithfully,
 KENNETH SWANN, Faculty of Management and Business, Manchester Polytechnic.

Marxism and learning

Sir.—Your leading article (THE TIMES, September 23) challenges Julius Gould on three counts. First, for failing to identify precisely "those who are trying to subvert our academic and cultural institutions. Surely the multitude of citations from the writings of Marxists, ultra-Marxists, and satelites is all that can be reasonably expected from academic sources. In fact, Professor Gould has done more "identifying" than was necessary or even helpful to his case.

Secondly, you deplore that Professor Gould has failed to prove the largeness and seriousness of the Marxist penetration. It is a commonplace that vocal and energetic minorities, sometimes diminutive have been able to prevail when faced with supine and indolent majorities. With all their sophistication, universities are not immune to this kind of take-over.

To discount this is to discount the lessons of Europe's recent history. But you do not depend exclusively on Professor Gould's evidence. Your own paper provides it. Your leading article is on page eight—turn now to page seven. There you will find a report of a conference at the University of Toronto which "informs us that the radical politicisation of the universal class has continued during recent years and you also quote Professor Jeanne Hirsch of Geneva University who was—as you tell us— "astonished at the complete paralysis of her colleagues in the wake of radical politicising at her university".

You deplore that Julius Gould does not demonstrate the scale of this penetration, but when he tries to show the depth and width of it, he is somewhat oddly told that "he lumps together" sociologists, social workers, and some others.

Your third point—a very dubious one—is that Professor Gould has no right to tell us what he writes unless he also spells it out for us, what we should do about it. In fact, he has told us and he requires no help from me to stress this point.

If Mr Miller were to read the publications of the Left, he would not be surprised to find

How not to help libraries

Librarians have suffered a two-pronged attack in the last five years. Like the rest of higher education, they have endured a squeeze on funds. But at the same time their basic commodity, books, has increased in price far more than even the average rate of inflation, and academic books more so than other books.

According to latest figures from the library management research unit at Loughborough University, the price of academic books has risen last two and a half years has risen by 96 per cent. The average price for the first half of this year was £5.95 compared with £4.59 in 1975. To no surprise, then, that university libraries have been squeezed. A recent National Book League report showed only four universities had consistently spent more on books in the last five years. But the problem is not only the economic squeeze, it is also the change of library ideas and criteria of university grants. Even more than in the past, universities are being told to spend the 6 per cent of their total income on books.

University Grants Committee in the Parry report, 1967.

At first sight therefore, the suggestion of "Reading University's library budget as a proportion of the university budget" he suggests a per cent library as a reasonable figure. But the cornerstones of universities, through good and bad fortunes of both higher education and the book trade, it would use and the great disparity between the amount spent by different institutions on their libraries. Older, more established universities tend to spend more, perhaps because they already have other basic needs, such as buildings, but it would introduce an element of control quite at odds with that basic principle of university government: "institutional autonomy. It would circumscribe still further the freedom they have to make decisions based on an understanding of local needs as to how their grants should be spent. Like the Atkinson report, it would take no account of the differing books needs of universities, which are related to student composition, age and rate of development.

The structures that prevent collapse into anarchy

The survival of the United Kingdom as a sovereign state is threatened from all directions: within, Celtic nationalists call for its break-up, and without, European federalists seek to merge it in a wider whole. Yet if one or the other of these things were to happen, it would signify not the demise of the sovereign state as an institution, but simply the fulfilment of a particular foreign state—a change in the number of such states in this part of the world.

The advocates of an independent Scotland, a united Ireland and of a European Federation have just as good a belief in the viability of the sovereign state as do those who wish to conserve the United Kingdom in its present form. And what is true of the world as a whole is also true of the states that may cease to be sovereign over the particular segments of the earth and of the human population to which they lay claim, but if they do, it is other states that seem likely to succeed them.

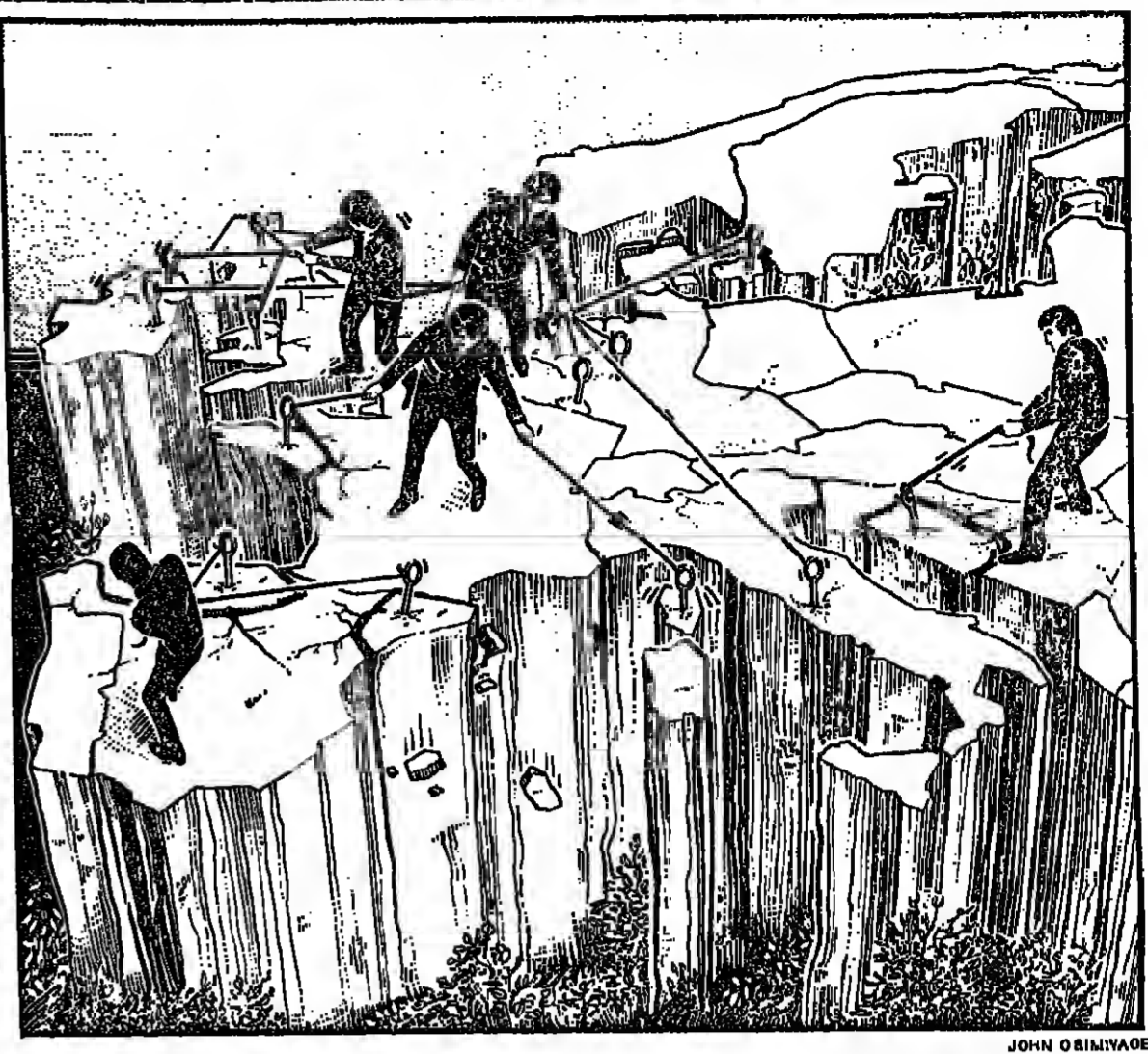
Like the French Nationalists and the Irish, the Quebec separatists and the Zimbabwe liberationists, the Paltos-Galao Organization, along with their counterparts among the Croolians, the Britons, the Nagas, the Papuans, the East Timorese and countless others, are stating in various ways their desire to create new states, to take control of existing states, to merge or amalgamate or change the boundaries of states. They do not seek to establish new kinds of political and legal entity in the world.

Nor does the experience of regional international organizations provide much evidence that attempts to provide alternatives in the Organization of African Unity, the Organization of American States, the Arab League, the Association of South East Asian Nations, are exercises in cooperation among governments.

In the case of the European Community one may point to developing trends—the latest being the proposed election of the European Parliament—that do suggest a potential threat to the sovereignty of member states. But even here the evidence is ambiguous, not only because of the strength of the forces resisting this trend, but also because the member states are working to deprive European states of their sovereignty are also working (at least in many cases) to create a European superstate that will itself be the attributes of sovereignty.

We are often told today that the sovereign state is in decline in relation to "other actors" in world politics (or, in the repellent phraseology of contemporary international law, that "the states-centric tradition is now obsolete"). If this were the case, world politics is shaped not by states but by nations, ethnic groups, subnational and transnational political parties, ideological movements, multinational business corporations, international and supranational organizations and by individual human beings. If this is something which only a fool would deny, the subject matter of world politics is not the state but the individual. The so-called "billiard ball theory of international relations", supposing that anyone had ever advanced it (in fact, of course, it is a straw man designed to make itself seem impressive) could be meant only as a legal and doctrinal fiction, not as a description of social reality.

It is absurd, however, to speak as if the role of the present played by "non-state actors" in world politics is somehow new or unprecedented. It is hardly possible to write the history even of eighteenth and nineteenth century Europe,



JOHN ORMINAIO

of which the In part in anti-state reaction against the socially homogenizing tendency of the former. It is the official theory of all states today that they are nation-states: even a state which acknowledges its multinational character (as does Britain or Switzerland or the Soviet Union) also claims that there is a single, more inclusive nation for which it speaks (the British people, the Swiss nation, the Soviet people). But in many old established states, there are national subgroups growing in self-awareness which refuse to identify themselves with the larger, inclusive nation and reject the official theory.

Another basis of the state's primacy in the past has been its authority over its citizens. States have collaborated in recognizing their own supreme jurisdiction, thus entering into a conspiracy of silence about the rights of one another's citizens, and denying all standing in international society to individual human beings and to non-state groups. Yet the prevailing concepts of "human rights" and "civil liberties" are having difficulty in making good this claim—as guerrilla groups resorting to force across jurisdictional boundaries are backed by UN majorities, proclaimed in its working just wars of national liberation, and extended the effect of the laws of armed conflict.

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The state's ability to recruit resources is uncertain in cases where there is doubt as to whether it corresponds to a nation; but in the Western and socialist worlds there are still many nation-states in good standing, and in the Third World there are many countries where the eventual creation of nation-states has a fair prospect.

A case can also be made for the view that, in a longer perspective, the role of the state is expanding rather than contracting. Firstly, it has been expanding geographically or horizontally. Two centuries ago most of the non-European world lay beyond the bounds of the sovereign state, in the sphere of an Islamic system, or of Oriental empires, or of tribalism. Today the sovereign state is established, however imperfectly, throughout the world as a whole. The number of states has been strikingly increased in the last century, and it has been debased: but for the first time the sovereign state is the common political form of the whole of mankind.

Secondly, or vertically. Internationally or inter-governmental dealings now concern economic and ideological matters, as well as political and strategic. The states system has extended its tentacles to deprive business corporations and bankers, labour organizations and sporting bodies, churches and political parties of the standing as autonomous actors that they once enjoyed.

Thirdly, any tendency of "other actors" to usurp the role of the state is inhibited by the tyranny of the existing normative concepts and practices. Ethnic groups, transnational political parties and international organizations may indeed have a right to the centre of the stage; but there are no accepted rules which define their place in a system which defines their place in a system that has been mentioned.

It does not possess a complete monopoly of the international use of force, but neither has it ever done, and the force at its disposal, and the means it commands to make use of this force, are incomparably greater than that of any other group.

States now inhabit a world in which individuals and groups other than the state, are widely recognized to have legal and moral rights and duties, as has been the case in previous periods. But it is still states that determine whether or not rights held against a state are protected, and whether or not men are held to account for the duties they have that override their duties to a state. And it is still states, not individuals or other groups, that are perceived as the principal bearers of rights and duties in world politics.

It is not time to challenge this theory of existing concepts. There is no lack of alternative schemes for universal political organization. No one can seriously imagine that the world is now ripe for an

imperial or hierarchical system, or for a universal republic or cosmopolitanism. But more thought might be given to the alternative of a universal political order, in which the prevailing norms permit overlapping or segmented authority and multiple loyalties, and do not confer sovereignty or supremacy upon the state over other associations or structures. Such a conception is an arbitrary blueprint, but builds upon developments in world politics that are actually taking place. It requires an attempt to devise agreed rules that would impart order and stability to the confusion which might otherwise take the place of the states systems.

We might imagine that in the United Kingdom the control of the right of the superior jurisdiction and the loyalty of citizens were no longer concentrated in a single authority in London, but were divided among national, subnational and supranational authorities. A Scottish authority in Edinburgh, for example, would have jurisdiction over Scotland, but would not exercise the United Kingdom of its sovereignty, but of the same time would have stopped short of claiming sovereignty for itself.

A European sovereignty in Brussels would also have jurisdiction over the United Kingdom, but would have no thought of itself becoming a European superstate. Diplomatic relations, world political status, perhaps control of the international use of force would be enjoyed by the Scottish and the European authorities, as well as by the British one. A man living in Glasgow would have divided allegiance as between the authorities making claims on him in Edinburgh, London and Brussels. The difficulty with the neo-medieval alternative, however, is not in devising its rules, but in securing a consensus about them. The medieval system of overlapping authority was founded upon a common culture, which is not available to us today, even so, it was able to ward off continuous and ubiquitous violence and insecurity then the modern states system.

The great virtue that the states system has in relation to other possible forms of universal political organization is that a consensus in favour of it—however tentative and precarious—actually exists. If it were to break down under strain it might well be replaced not by a neo-medieval or any other form of political order, but by a slide into chaos.

The author is Montague Burton professor of international politics at Oxford University, and author of *The Anarchical Society*, published earlier this year by Macmillan.

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COUNTY OF AVON APPOINTMENTS WANTED

Western Australian Institute of Technology SCHOOL OF HEALTH SCIENCES

Department of Medical Technology Senior Lecturer in Nutrition and Food Science

Department of Medical Technology Senior Lecturer Medical Technology

AUSTRALIA ROYAL MELBOURNE INSTITUTE OF TECHNOLOGY LECTURER

AUSTRALIA ROYAL MELBOURNE INSTITUTE OF TECHNOLOGY SENIOR LECTURER

RUSDEN STATE COLLEGE DRAMA DEPARTMENT SENIOR LECTURER IN DANCE

RUSDEN STATE COLLEGE SENIOR LECTURER IN DANCE

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Western Australia Institute of Technology

WAIT is a major Australian tertiary education institution, with an internationally recruited academic staff whose duties are mainly related to teaching. At present there are over 11,000 students undertaking degree or diploma studies at both undergraduate and graduate levels. Academic programmes may be taken on a full-time, part-time or external study mode, and in general are vocationally oriented. Academics wishing to work in a stimulating environment are invited to apply for the posts listed below.

SCHOOL OF APPLIED SCIENCE

CHEMISTRY—TUTOR/SENIOR TUTOR/LECTURER. Each general (first year) chemistry and conduct self-paced (Keller plan) classes. This is a non tenured position for a period of 1 or 2 years. (Ref HE5 008).

BIOLOGY—LECTURER. Teach and develop courses in either entomology or fish biology. (Ref HE5 006)

INORGANIC CHEMISTRY—TUTOR/SENIOR TUTOR/LECTURER. Teach inorganic, analytical and general chemistry at first and second year level. This is a non tenured position for 2 years. (Ref HE5 007)

SCHOOL OF BUSINESS & ADMINISTRATION

ACCOUNTING—TUTOR/SENIOR TUTOR/LECTURER. Teach Financial and Management Accounting and Auditing. Practical, accounting experience preferred. (Ref HE5 009)

FINANCE—LECTURER/SENIOR LECTURER. Teach financial analysis, planning and financial management techniques. Professional experience in financial management preferred. (Ref HE5 022)

LAW—TUTOR/SENIOR TUTOR/LECTURER. Teach law to business students in the following areas: Commercial Law, Law of Real and Personal Property, Corporate Law, Law and Practice relating to government taxes. Applicants should possess a degree in Law or Jurisprudence. (Ref E5 011)

BUSINESS POLICY—TUTOR/SENIOR TUTOR/LECTURER. Develop and conduct computer business games. Commercial experience essential. (Ref HE5 024)

PUBLIC ADMINISTRATION—TUTOR/SENIOR TUTOR/LECTURER. Teach politics, comparative and local government and government finance. Maintain professional association with Federal, State and Local Government Personnel. Practical experience at one level of Government essential. (Ref HE5 023)

ORGANIZATION THEORY—TUTOR/SENIOR TUTOR/LECTURER. Teach management and organisation subjects. Experience in office systems, methods study and business games desirable. (Ref HE5 028)

ECONOMICS—TUTOR/SENIOR TUTOR/LECTURER. Teach applied macro and micro economics mainly to business students. Practical business experience and qualifications in related areas preferred. (Ref HE5 010)

PERSONNEL AND INDUSTRIAL RELATIONS TUTOR/SENIOR TUTOR/LECTURER. Teach all elements of the personnel and industrial relations functions. Practical experience at a professional level is required. (Ref HE5 025)

VALUATION—TUTOR/SENIOR TUTOR/LECTURER. Teach Degree and Diploma students. Applicants must be qualified valuers, preferably with expertise in land economics and utilization. (Ref HE5 020)

EDP SYSTEMS ANALYSIS—TUTOR/SENIOR TUTOR/LECTURER/SENIOR LECTURER. Teach analysis, design and implementation of computer systems for business and government. Practical application experience necessary. (Ref HE5 021)

SCHOOL OF TEACHER EDUCATION

CURRICULUM & INSTRUCTION—GENERAL—SENIOR LECTURER. Teach curriculum theory and development with emphasis on research design and/or Curriculum Evaluation. (Ref HE5 012)

CURRICULUM & INSTRUCTION—SCIENCE—TUTOR/SENIOR TUTOR/LECTURER. Teach science education with major emphasis on science in the primary (elementary) school. (Ref HE5 018)

ANALYSIS/STRATEGIES OF TEACHING—TUTOR/SENIOR TUTOR/LECTURER. Teach classroom observation techniques, teaching strategies and microteaching. Experience in working with College teachers preferred. (Ref HE5 018)

CURRICULUM & INSTRUCTION—MATHEMATICS—TUTOR/SENIOR TUTOR/LECTURER. Teach primary (elementary) maths education. Some knowledge of computer assisted learning preferred. (Ref HE5 017)

CURRICULUM & INSTRUCTION—READING—SENIOR LECTURER. Teach reading skill acquisition and development especially for early childhood and primary levels. (Ref HE5 014)

FIELD PRACTICE—TUTOR/SENIOR TUTOR/LECTURER. Teach theory and practice of teaching with supervision of student teaching at early childhood, primary or secondary level. (Ref HE5 019)

EDUCATIONAL PSYCHOLOGY—SENIOR LECTURER. Teach special education with particular reference to early childhood primary level. (Ref HE5 015)

ANALYSIS/STRATEGIES/FIELD EXPERIENCE—SENIOR LECTURER. Teach Analysis and Strategies of Teaching with supervision of student teaching at early childhood, primary or secondary level. (Ref HE5 013)

SCHOOL OF MINING & MINERAL TECHNOLOGY (Located at Kalgoorlie)

MINING & ENGINEERING—LECTURER. Teach Mining Technology, in the new degree course in Mining and Engineering. This is a non tenured position. (Ref HE5 028)

EXTRACTIVE METALLURGY—LECTURER. Lecturer in metallurgy thermodynamics and unit processes to degree and graduate diploma level. Experience in metallurgy, industrial experience in iron ore, steel-making or non ferrous smelting preferred. This is a non tenured position. (Ref HE5 029)

GEOLOGY—SENIOR LECTURER. Teach, develop and supervise mining geology. Experience in Archean geology required, preferably in the field and underground. Good knowledge of ore genesis, igneous petrology, structural geology and the broader aspects of stratigraphy desirable. This is a non tenured position. (Ref HE5 030)

Conditions include: Salary range: Senior Lecturer £12,447-£14,821, Lecturer £9,256-£12,185, Senior Tutor £7,986-£9,138 and Tutor £6,555-£7,732 (Salaries quoted at August 29th rate of exchange £0.8326 = \$A.100).

Qualifications: Senior Lecturer—A good higher degree and considerable experience, including tertiary teaching, are preferred. Lecturer—Post Graduate qualifications with experience, including teaching, are preferred. Senior Tutor/Tutor—A relevant degree with some industrial or teaching experience is preferred. Leave: Annual, Long Service and Study Leave. Superannuation: A choice of superannuation is available if required, including a scheme similar to FRSU. Transfer Expenses: Fees for family plus estate for a period up to three years. Tenure: Except where indicated—Appointment may be either tenured or non tenured.

Applications: Detailed applications, including a curriculum vitae and the names and addresses of three referees should be submitted not later than 28th October, 1977 to the Migration Liaison Officer, Western Australia House, 115 Strand, London WC2R 0AJ, England. A brochure containing further information may be obtained from the above address. When applying please quote position and reference number.

OVERSEAS TEACHING POSTS

LECTURER IN ENGLISH LANGUAGE AND LITERATURE (Japan)
Hiroshima University
MA and at least 2 years' teaching experience.
Salary: Yen 191,000-250,000 per month.
(Rate of exchange approximately Yen 470=£1) and annual bonus.
Benefits: Indemnity and education grants; rent allowance; medical scheme; two year contract. 77 PU 150

LECTURER IN ENGLISH (South Africa)
University of Fort Hare
Lecturer to run Practical English Course specifically catering for the Xhosa speaking group.
Degree in English, and experience of tertiary level English teaching essential. One year university qualification in TESL desirable. Single candidates only.
Salary: £4,490-£8,514 p.a. approx.
Benefits: Free furnished accommodation, employee portion of UK superannuation. 3 year contract. 77 HU 62

SPECIALIST IN THE TEACHING OF ENGLISH AS A FOREIGN LANGUAGE (Pakistan)
Punjab Open University Islamabad
Candidates should be U.K. citizens, possess an MA in Applied Linguistics and have considerable experience in TEFL overseas and in materials preparation. Prior involvement in use of radio and television as a medium of instruction is an advantage.
Salary: Process of present emolument.
Benefits: Overseas allowances; education allowances; free accommodation; medical scheme 2 year contract. 75 UJ 52

ELT SPECIALIST IN INSTRUCTIONAL MATERIALS (Thailand)
Chulalongkorn University, Bangkok
To devise tests and develop general and ESP materials.
Qualifications: Graduates with relevant postgraduate qualification and at least 3 years' experience.
Salary: £5,210-£7,054 plus 10 per cent inducement allowance p.a.
Benefits: personal and children allowances; free furnished accommodation, medical scheme employer's portion of superannuation contribution. 2 year contract. 75 TU 104



Deputy Director Curriculum Development Centre Canberra, Australia \$A24,252 p.a.

Applications are invited from interested persons for short or long-term engagement to this newly approved post.

The Centre
The Curriculum Development Centre to undertake a range of tasks in and related by the Australian Government is a national statutory body, established to school curriculum. Its work involves close cooperation with authorities responsible for school systems and teacher education, specialist groups of teachers, government departments and agencies and a variety of professional and community groups with an interest in education.

The Deputy Director
The precise role of the Deputy Director will be delineated according to Centre programme priorities and the interests and expertise of the successful applicant, but will include:
- assistance and support for the Director in the overall management of the Centre's affairs
- policy advice and initiation direct involvement in some of the Centre's ongoing programmes including coordination of programmes and some major projects
- leadership and advice to staff
In addition, the Deputy Director will be required to represent the Director at conferences and seminars, to undertake public speaking engagements and to manage the Centre in the Director's absence.

Qualifications and Experience
Interested persons should have appropriate academic qualifications including a higher degree in an education-related field and substantial experience in one or more of the following: academic institutions, research, curriculum development, educational administration.
Terms of Appointment
The term of engagement may be either 2-3 years or permanent. This will be decided in discussion with candidates selected for interview. Candidates should indicate their preference—and argument thereof—when applying.
Conditions of Service
The successful applicant will be entitled to the terms and conditions of service applicable to Second Division Officers of the Australian Public Service. The Centre will bear reasonable costs of removal and travel to Canberra of the successful applicant and his family. A summary of conditions of service is available on request.
The present exchange rate £1 equals \$A1.59 approximately.
How and Where to apply
Applications should contain a comprehensive curriculum vitae including details of degrees, other qualifications, awards, relevant experience, publications and include a statement of interest in the post. Names and addresses of three referees should be included.
Apply to: Mr. P. C. Maher, Assistant Director, Curriculum Development Centre, P.O. Box 632, Manuka, A.C.T. 2603, Australia.
Additional information available from the above address.



THE BRITISH COUNCIL Science Education in Nigeria

1. Inspector of Education (Physics/Mathematics), Ministry of Education, Benin City, Bendel State.
2. Inspector of Science, Ministry of Education, Sokoto, Sokoto state

Both Ministries of Education have programmes for the improvement of science education to meet Nigeria's developmental needs. These posts will occupy key positions in the programmes and their occupants will be able to provide a significant influence on the future development of science education in the States. The persons appointed will carry out the usual duties of the Ministries' inspectors and will contribute also to the Ministries' staff development programmes and to the planning and organisation of in-service training programmes. Both posts will have some responsibility for developments in primary education in addition to their main work in the field of secondary education.
For both posts an appropriate science degree and a professional qualification in education are essential. At least eight years' post-qualification experience is required and should include some experience of work in a developing country. For the Benin post, experience of work in mathematics education as well as physics will be a strong recommendation. For the Sokoto post a particularly appropriate background would be a specialisation in physics with experience of integrated science at junior secondary level.
Appointments in both cases will be to the British Council on contract terms, initially for two years, with secondment to the Ministries. Service may be on secondment from a candidate's present employer.
The salary scale is between about £5,900 and £6,900 and overseas allowances are between about £2,300 and £5,500 depending on family circumstances. Free furnished accommodation overseas, paid passages for family and children's education allowances will be provided.

Selections will be by London interviews and board. Write or telephone quoting ref C13 for further details and an application form to be returned by October 31, to Staff Recruitment Department, The British Council, 65 Davies Street, London W1Y 2AA (01-992 8011, ext. 3041).

FRANCE

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In Saint-Germain: The Centre for Educational Studies (Centre de Recherches) has a two and four year contract posts for the Institute of General Culture (Institut Supplémentaire de Culture Générale) from November 1977 to June 1978. The Institute is a non-profit-making body which will be in charge of a number of courses in the field of general culture. The Institute is a non-profit-making body which will be in charge of a number of courses in the field of general culture. The Institute is a non-profit-making body which will be in charge of a number of courses in the field of general culture.

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